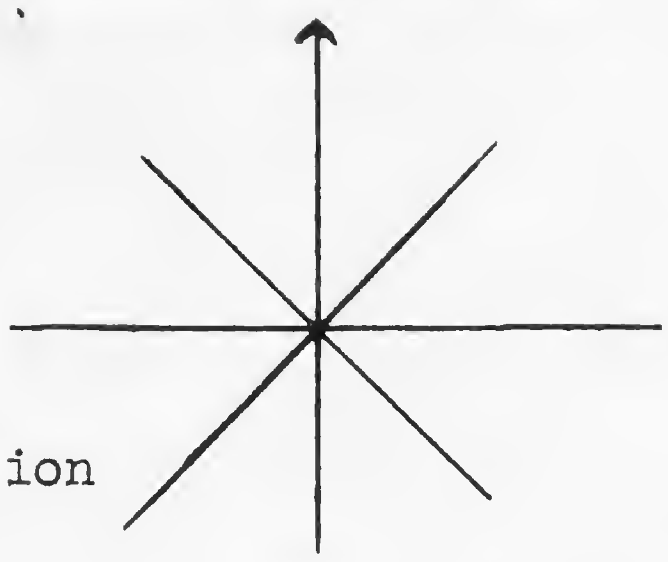
Ship Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Ely
Cligg

Date 25 Aug 1967
Pg.# 10

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0640	wt sh.	3	←		others before daylight { Can see only those coming near ship
0642	wt shear	2	↓		
0644	wt shear	2	↓		
0646	Sooty Tern	1	↓		
0646	wt sh	4	↓		many w.t. sh. in area.
0648	wt sh	8	↓		steady stream (loose) past ship.
0650	w t sh	20 +			
	Sooty Tern	4 +			
	Rf. Booby	1			ad.
0655	wt sh	55			
	S. Tern	2			
	Christ Shear	1			
	Bul Pet	2			
	Bf Booby	1			ad.
0700	C Sh.	1			
	S Tern	3			
	RfB	2			ad
	wt sh	110			
	Rttb	2			
0705	wt Sh	157			
	S tern	3			
	Bf B	1			af
0710	Bf B	1			ad.
	wt sh	167			
	St.	10			
0715	WT Shear	75			0710-0715 - my watch
					WTS ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~
	Xmas I. Sh.	1			Xmas i
	RFB	2			adult RFB II
	ST	8			ST ~~IIII~~ III co. 6. miles off
	E Bng	1			
					0715-0720 -
					WTS ~~IIII~~ ~~IIII~~ ~~IIII~~
					ST ~~IIII~~ ~~IIII~~
					Booby sp i
0725	wt sh.	15			{ 1 only 1860 - 8 mi S. Laysan
	S tern	5			
	Br Noddy	1			
	Bul Pet	1			

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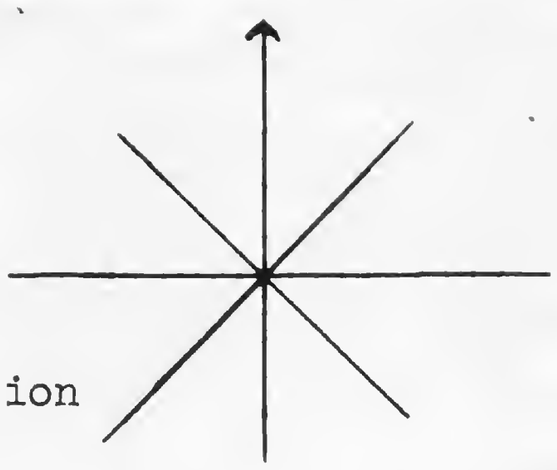


SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

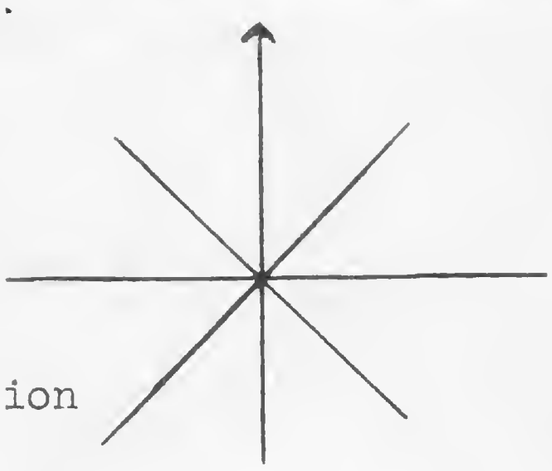
OBSERVERS:
Ely
Clapp

Date 25 Aug. 1967
Pg.# 2

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0725	Bl. Noddy	50 +	←		Bird numbers dropped towards ship as we approached line of island. Most moved
-0736	Br. Noddy	5 +	←		with 1-10 m/s
	wt sh.	5 +	←		
0735	Sten	20			rough st.
	wt sh.	10			
	Bl. Noddy	2			
	Br. Noddy	10			
	Brn Bet	1			
0740	Sh Frig	1			
	S. Blue	1	→		
	S. Tern	40			st.
	wt sh.	6			
	Bl Noddy	2			
0745	S. Tern	23			
	wt sh	1			
	Brn Bet	1			
0746	wt sh	4			Not in flock
	Stern	9			
0747	S Tern	5			~~Not~~ many birds toward island; Noddis wt Gr sh.
	wt sh	5			
0749	Stern	9			
	wt sh	5			
	Bl Bet	1			
0753	Brn Bet	1			
	S. Tern	10			not in flock
	wt sh.	5			
	Sh. Frig	1			
0753	Sanderling	1	→	toward	Lagoon
0754	wt sh.	10			
	Stern	10			
	~~Bl~~ Brn Bet	1			
0755 -0800	Stern	12			
	wt sh	12			
	Bl. Noddy	1			

Remarks cont'd:

fem male



Ship Direction

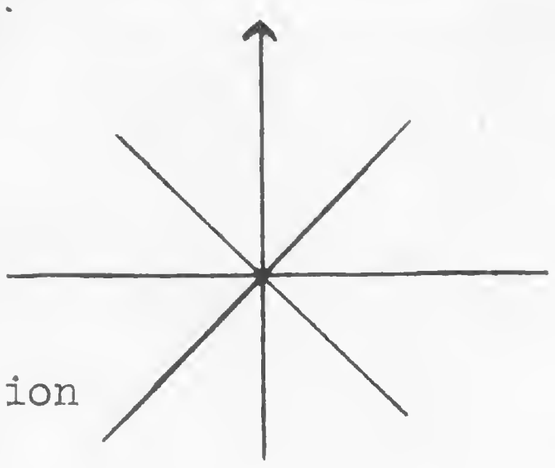
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: Clapp, Eley

Date 25 Aug 1967

Pg.# J

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
0800	S tern	2			
0805	wt shear	2			
	Bl Noddy	2			
	Br noddy	1			
	w. Tern	1			
0807	Bonin Pet	1	←		
0807	S. tern	1	↗		
0807	wt shearwater	1	↗		
0808	Bul Pet	1	←		
0809	S. tern	2	→		
	wt. shear	2	→		
0810	Bonin Petrel	1	←		
0810	S. tern	1	↗		
0812	Bonin Petrel	1	←		
0812	S. tern	1	→		
0813	Bonin Petrel	1	←		
0813	Bonin Petrel	1	←		
0813	S. tern	1	→		
0813	wt shear	1	→		
0814	wt shear	1	→		
0815	Bonin Petrel	1	←		
0816	wt shear	3	→		
0816	S tern	2	→		
0817	S. tern	1	→		
0817	Bonin P	1	←		
0818	wt shear	1	→		
0818	S. tern	5	→		
0818	S. Tern	6	←		high
0819	White tern	1	→		
0820	D. frig	1	→		Imm.
0822	wt shear	1	→		
0822	S. tern	1	→		
0823	S. tern	1	→		
0823	B. f Booby	1	↑		ad.
0824	wt shear	1	→		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Clapp
Ely JJ

Date 25 Aug. 1967
Pg.# 4

	TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
	0826	wt sh.	1	→		
TF	0826	S Tern	12	↘		
	0827	wt shear	1	→		
	0827	S. Tern	9	↘		
	0828	wt shear	2	←		
	0829	Bonin Pet.	1	←		
	0829	wt shear	1	←		
	0829	S. Tern	1	↓		
	0830	wt shear	1	←		
	0831	Bul Pet	1	↑		
	0833	Bonin Pet	2	←		
	0834	white Tern	1	←		
	0836	Br. Noddy	1	→		
	0836	Sooty Tern	2	→		
	0837	Bonin Pet.	1	→		
	0837	wt shear	1	←		
	0839	Bonin Pet.	1	←		
	0839	Sooty Tern	1	↓		
	0841	R.f Booby	1	←		ad.
	0841	Bonin Pet	4	↙		
	0842	wt shear	1	←		
	0843	Bonin Pet	2	←		
	0844	Bonin (?)	1	←		
	0846	wt shear	1	←		
	0847	Bonin Pet	1	↓		
	0847	Bonin P (?)	1	↗		
TF	0848	Sooty Tern	9	→		
TF	0850	S. Tern	76	↓		
	0850	wt shear	1	←		
	0852	wt shear	1	←		
	0854	wt shear	2	↙↗		
	0856	S Tern	3	↓		
	0855	wt shear	2	←		
	0858	wt shear	2	↙		
	0859	S Tern	2	←		distant
	0900	wt shear	2	←		
	0900	S. Tern	4	↓		

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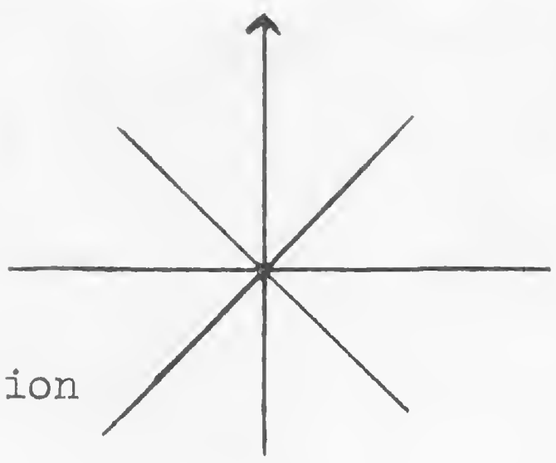

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Clapp
Ely

Date 25 Aug. 1967
Pg.# 5

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
0903	Sooty Tern	4	↗		
0905	W.t.shear	2	←		lt. phase
0905	Sooty Tern	1	→		ad.
0906	W.t.shear	1	→		lt phase
0907	W.t.shear	1	→		lt phase
0907	Sooty Tern	1	→		ad.
0908	Bonin Petrel	1	↙		
0911	Bonin Petrel	1	↙		
0912	W.T. Sh.	1	↙		lt. phase
0913	Sooty Tern	2	←		ad. very high 150 Feet +
0918	Bonin Petrel	1	↙		
0919	Bonin Petrel	1	→		
0920	Bonin Petrel	1	←		
0920	W.T. Shear	1	→		
0923	Shear-pet.	1	→		distant
0925	Bonin Pet.	1	↙		
0928	Sooty Tern	1	←		ad
0928	Sooty Tern	1	←		ad
0929	Shear-pet	1	←		
0933	W.T. Sh.	1	→		lt. phase
0934		6			4-8 birds by 8a terns? petrels? 1 booby?
0939	Shear-pet	1	↖		
0943	Bonin pet	1	→		
0944	Sooty Tern	1	→		ad
0944	W.T. Shear	1	→		lt. phase
0943	Bonin Pet	1	→		
0946	Bonin Pet	1	↙		
0946	W.T. Shear	1	←		
0944	Bonin Pet	1	→		
0949	Bonin Pet	1	↙		lt. phase
0950	W.T. Shear	1	↙		
0952	Shear-pet	1	↙		
0953	W.T. Shear	1	↑		lt phase
0954	Bonin Pet	1	↙		
0956	Sooty Tern	1	↓		ad

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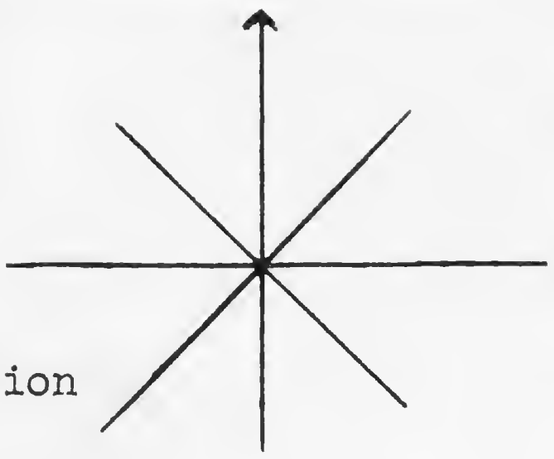


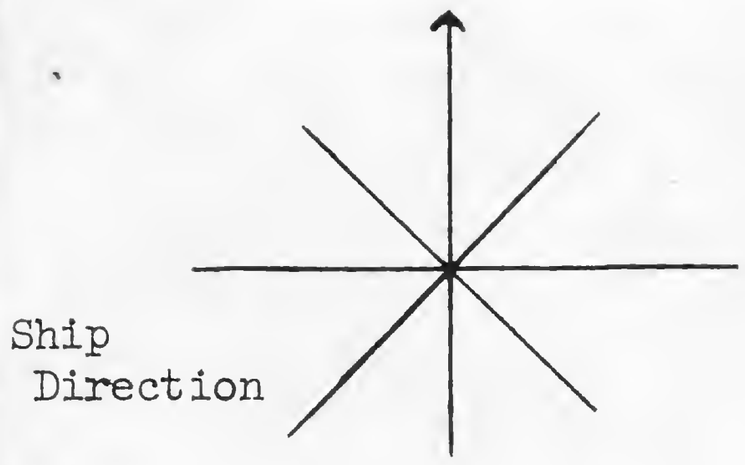
Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Ely
Glupp

Date 25, Aug 67
Pg.# 56

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1000	Sooty Tern	1	→		ad
1007	wt sheam/gat	1	→		distant (p.b. wts)
1008	Red ft. Bd	2	)	——	directly over ship
1008	Bal Pet	1	→		
1008	Bmin Pet.	1	→	——	landed on H_2O briefly
1009	Sooty Tern	1	⇄		ad
1010	Bmin Pet	1	→		
1010	wt sheam	1	←		
1011	wt sheam	2	←		
1011	Sooty Tern	1	→		
1013	Bmin Pet	1	←		
1016	Bmin Pet	1	↙		
1018	Bmin P.?	1	↗	——	distant
1021	Bmin P. ?	1	→	——	distant
1022	wt sheam	1	→		
1023	Bmin P	1	↙		
1023	wt-sh w	1	→		
1029	wt sh w	1	↙		
1032	Bmin Petl	1	←		
1032	Red ft Bdby	1	←		ad
1032	Rtt Bd	1	↓	——	ad. on ship
1032	Sooty tern	1	↓	——	high over ship (ad)
1035	Bmin Petl	1	↙		
1035	Bmin Pet	1	↓	——	close
1040	Bmin Pet	2	↙↓	——	distant
1041	Bmin P(?)	1	→	——	
1043	wt sht	1	↗		ad
1045	~~wt sh~~	1	↗	——	ad ~~distant~~
1047	Bmin P	1	↙		close
1050	wt sh	1	↑		
1052	sheam/gat	1	↙	——	distant
1054	wt sh.	1	↓		
st 1059	S Tern	21	↓		wt actively feeding
	wt s	10 I	↓		but circling while moving
	Bmin Pet	2	→		
1100	Christm Sh	1	↓		dark, bf smaller than wt. sh.
	wtsh	1	↓		
1103	S Tern	3	→		
1103	Bmin Pet	1	→		

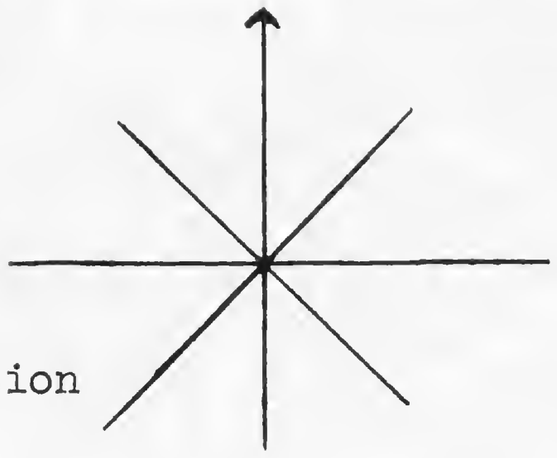


SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Clapp
Eley

Date 25 Aug. 67
Pg.# 67

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
TF	1104	S. Tern	7	↑		
	1105	W.T. Shear	1	↙		M. phase
	1105	S. Tern	1	↖		
	1105	W.T. Shear	1	←		
	1107	W.T. Shear	1	↗		lt. phase
	1109	Brown Petrel	1	⇔		
	1111	Shear-sp	2	→		one prob. WT Sh.
	1113	Sooty Tern	1	↓		ad
	1118	W.T. Shear	1	←		M. phase
	1118	W.T. Shear	1	→		
	1119	W.T. Shear	1	←		
TF	1125	Sooty Tern	25	↘		resting flock at least half the total wedgetails sitty on water before ship passed flock. 1 Brown Noddy was also probably roosting on H2O. Scatter low to about 40 or 50 feet - Wedgetails on surface of water were facing into the wind. All W.T. Sh. seen were light phase
		W.T. Shear	50			
		Brown Noddy	1			
	1129	W.T. Shear	1	↗		
	1129	W.T. Shear	1			lt.
	1133	W.T. Shear	1	↙		lt. ph.
	1135	W.T Shear	2	↙		
	1141	W.T. shear	1	←		
	1150	W.T. shear	2	↗		
	1153	W.T. shear	1	↘		
	1153	Brown Petrel	1	↙		
	1154	W.T. shear	2	↓		
	1154	W.T. shear	2	↙		
	1203	W.T. shear	1	←		
	1203	sooty/shi?	1	↖		distant; dark, different flight, very fast
	1213	W.T. sh.	3	?		off
	1215	W.T. sh	1	→		
	1220	Brown Gan	1	→		
	1221	W.T. shear	1	↑		
	1224	Brown Gan	1	↗		
	1228	Sooty Tern	3	⇗		very low over H2O
	1230	W.T. Sh.	1	←		
	1243	R.t.t. bird	1	↑		Dom (black bill)

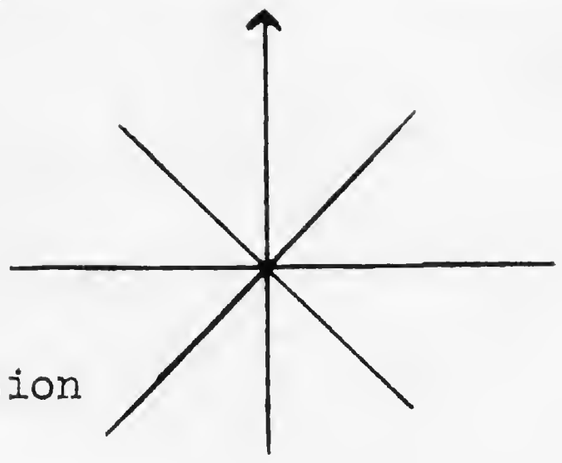


OBSERVERS:
clg
Eg

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 25 aug. 1967
Pg.# 8

	TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
	1244	Sooty Tern	1	→		imm. glossy - circled ship 3 times
	1249	R+T. Bird	1	↑		ad., over ship
	1253	Sooty Tern	20			
FF		Br. Noddy	20			
		W+ ch.	35			definitely hitting water - no flying fish
		R+B	1			ad. white phase
		Sooty Tern	1			ad. one band
						circled ship again.
	1254	W.T. ch.	3	↖		
	1256	W.T. ch.	2	←		
	1258	Bonin Set	1	←		
	1300	RTTB	1	↙		Only ½ of 1 central tail feather gone
	1304	WT Shear	1	↙		Cum. up on ship from ocean
	1313	Bulwers	1	↗		lt. phase
	1314	Bonn P.?	1	←		maybe B. rumped Petrel. Very light back, pinkish
	1320	Shear petrel	1	←		
	1320	Bonn P	1	↑		
	1321	W.T. Shear	1	↖		lt phase.
	1324	Bird sp.	1	←		too distant
	1325	W.T. Shear	1	↙		lt phase
	1325	Bulwers	1	→		
	1330	W.T. Shear	1	↙		lt. phase
	1332	Frigate	1	↓		imm? or ♀?
	1334	WT Shear	1	↙		lt. phase
	1335	WT Shear	1	←		lt. phase
	1336	WT Shear	1	←		lt. phase
	1338	Bon in Petrel	1	↗		
	1338	W.T. Shear	1	←		lt. phase
	1340	W.T. Shear	1	←		lt. phase
	1342	W.T. Shear	1	←		lt. phase
	1345	W.T. Shear	1	←		lt-phase
	1350	Sooty Tern	1	↖		ad. & light band
	1353	W.T. Shear	2	←		
	1354	WT. Shear	1	←		



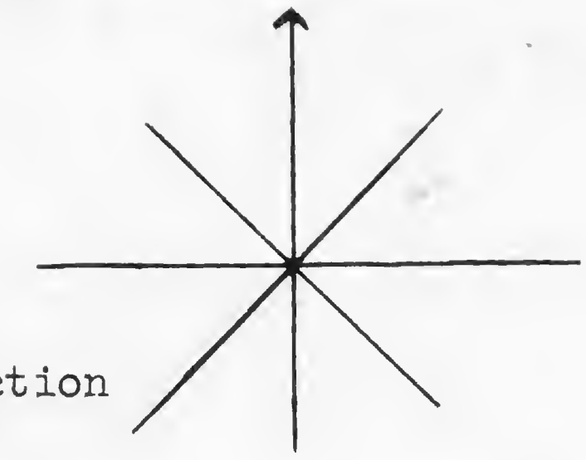
Ship Direction

OBSERVERS:
EH
Claud

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 25 Aug 67
Pg.# 8 9

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1355	Wt. Shear	1	↖		— H. phase
1356	Wt. Shear	1	←		— It. phase
1357	WT Sh.	1	←		It phase
1357	Sooty Tern	1	←		adult
1358	Wt Shear	1	←		
1359	Frigate	1	↓		— Good view - passy at about 100 - 150' Ft. White bellied, white headed subadult plumage
1400	Bulwers	1	←		
1400	W. T. Shear	1	←		
1401	W. T. Shear	1	←		
1401	WT Shear	1	→		
1405	Bonin P.	1	→		
1406	Bulwer P	1			— sitting in H_2O, flew 50' & started circling.
1407	w.t. shear	1	↑		
1409	w.t. shear	6	↗		— Lone flock?
1411	w.t. shear	2	↑		
1412	w.t. shear	7	↗		
1418	wht sh/gt	2	→		
1419	w.t. shear	1	↗		
1420	w.t. shear	4	→		
1421	w.t. shear	2	→		
1422	w.t. shear	4	↙		
1422	Bonin Pet	1	→		
1426	Bonin Petrel	4	↙		
1426	w.t. shear	1	→		
1427	w.t. shear	2	↗		
1428	w.t. shear	13			— sit in H_2O
	Bonin Pet	2			
1433	B Booby	1			Juv.
	Sooty Tern	20			500-600 yds off
	wht. sh	20			
1437	w.t. sh.	1	↗		
1439	w.t. sh.	2	↖		
1441	w.t. sh	1	↓		
1443	w.t. sh	2	↑		



Ship Direction

OBSERVERS:

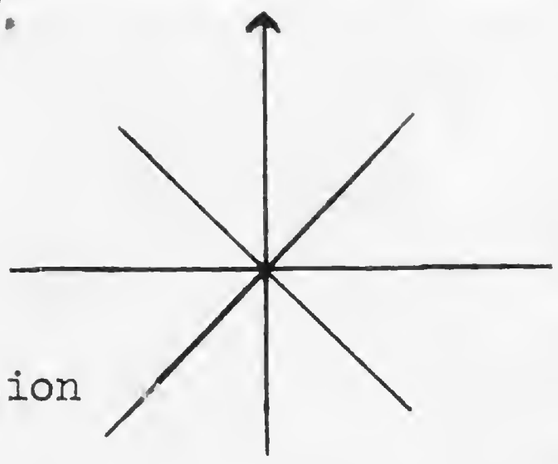
Clapp
Eddy

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 25 Sept. 1967

Pg.# ~~9~~ 10

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1445	Bonin Pet.	1	↑		
1446	w.t. sh.	4	↗		
1447	w.t. sh.	2	↑		
1448	w.t. sh.	1	↑		for some time now birds have been coming along & passing mast.
1456	Sooty Tern	1	↑		
1456	Bonin Pet.	2	↑		
1452	Bonin Pet.	4	↑		
1453	Bonin Pet	1	↓		
1454	w.t. sh.	1	↙		
1455	Bonin Pet	1	←		fast
1457	Bonin Pet	1	↓		
1458	Bonin Pet	1	→		
1458	wht shear/pet	3	↗		distant
1459	w.t. sh	1	←		
1459	w.t. sh.	1	?		
1459	w.t. sh.	1	?		
1459	w.t. sh.	1	←		W. phase
1459	w.t. sh.	1	←		
1500	w.t. sh.	2	←		Int. phase
1500	w.t. sh.	1	←		W. phase
1502	w.t. sh.	1	←		
1503	Frigate	1	↘		very high
1504	w.t. sh	ca. 6	//		ca. 25 birds along horizon	we all moving	- seem to be all sheerwaters.
TF? 1504	Bonin P.	c. 4	//		
1508	Bonipet.	1	→		has double underwing rudy, breast at jowl & other underwing slash.
1511	Bonin	1	←		
1515	Bonins	1	←		
1515	Bonins	1	←		
1515	Bonins	1	←		
1515	Bonins				ca 25 in sight at one time mostly headed towards Nusculan
1517	Bonins				
1518	W.T.Sh.	1	→		
1520	w.t.s. petrel	1	/		close to sh. (7)
1521	Sooty Tern	1	←		
1523	w.t. sh.	1	←		
Stopped Counting	Bonin Petrels				from 30 - 50 counted (by two observers) at all times
1535	White Tern	1	↑		



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: Clapp, Cg

Date 25 Aug 1967

Pg.# ~~12~~ 11

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1534	Sooty Tern	1	→		ad.
1543	Brown Nod.				Cargo #3, 1 large flock of 60 +
1550	w.t. shw.	1	⇐		
1551	w.t. sh.	1	→		
1553	Banns	10-20			seen at one time, most veering in general direction of Kisianski.
1555	w.t. sh.	1	→		1st phase
	birds passing	bow	per	minute - 1558 — 59 : 10	
1603	Bulwers	1	←		
1604	Band-rumped	6			first seen sitting together on water. After flushing one of this group readily on the water. Many others coming along regularly ad.
1611	Sooty Tern	1	↑		
1615					numbers of passing petrels decreasing considerably c. 1613-1614. Re-logging cont out 1615
1616	Shear-pet.	1	←		
1620	Brown Nod.	2	←		
1624	Brown Nod	1	↑		
1625	shear-pet	12			arc of 180°
1626	Brown Petrel	6	↓		
1628	Brown Petrel	19	↙		
1630	w.t. sh.	1	←		
1631	shear pet	20	⇐		
1632	Sooty Tern	3	↓		
1633	Brown Petrel	6	↓		
1640	Sooty Tern	1	→		
1644	Sooty Tern	3	↗		
1644	Brown Petrel	4	↓		
1645	w T shw	1	→		
1647	white Tern	2	←		
1647	shear pet	10 ±			scattered in distance
1648	Brown Nod	2	↘		
1649	w t sh	1	→		
1649	Brown Nod	2	←		
1651	Brown Nod	4	↓		
1652	Brown Nod	2	↓		

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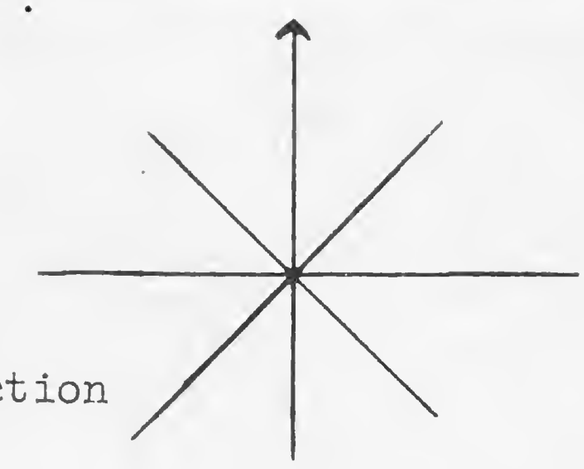
Rev. 5-66

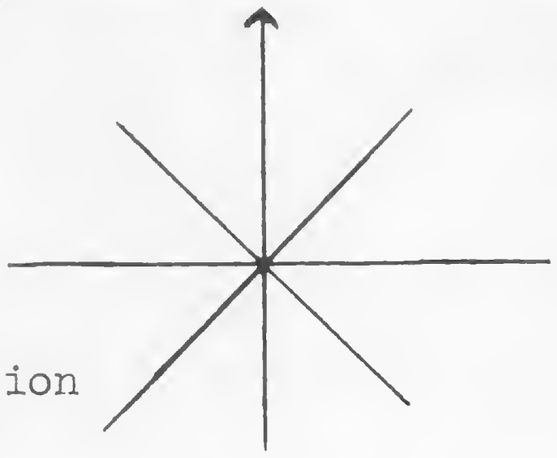


SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
CE
EEJ
J

Date 25 aug. 1967
Pg.# 4 / 12

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1653	Bonin Petrel	2	↙		
1654	w. t. shear	1	↙		
1655	Bonin Petrel	1	↓		
1656	Bonin Petrel	2	↙		
1656	Bonin Petrel	1	↓		
1658	Bonin Petrel	1	↓		
1707	Bonin Petrel	7	—	—	beg "flock?" 25 mi N. Iwojima
1712	Bonin Petrel	3	↓		
1713	Bonin Petrel	1	↓		
1714	Bonin Petrel	3	↙↓		
1715	Laysan albatross	1	—	—	Darw. on H_2O; still one brown down on head.
1715	Bonin Petrel	5	↓		beg "flock?"
1717	Rftb	1	→		
1717	Bonin Petrel	5	↓		fwd. angle
1721	Laysan alb.	1	↑	—	imm. fwd some brn.
1723	Bonin Petrel	3	↙		
1724	Bonin Petrel	4	↙		
1726	Bonin Petrel	3	↓		
1728	Bonin Petrel	2	↙		
1728	w.t. shear	1	↙		
1730	w.t. shear	1	↓		
1731	shear/pet	1	↙		
1732	Sooty Tern	2	↓		
1732	Bonin Petrel	2	↙		
1732	Bold-Fl.	1	→		
1733	Bonin Petrel	3	↙		
1733	w.t. shear	1	←		
1735	Bonin Petrel	3	↙		
1736	Bonin Petrel	4	↙		
1736	w.t. shearwater	1	↙		
1737	Bonin Petrel	4	↙		
1741	Bonin Petrel	3	↙		
1745	Bonin Petrel	3	↓		
1747	Bonin Petrel	2	↓		
1748	Bonin Petrel	3	↓		



Ship
Direction

OBSERVERS:

Clapp D.S.
Ely

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 25 Aug 1967
Pg.# ~~12~~ 13

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1751	Bonin Petrel	1	↙		
1753	Bonin Petrel	2	↙		
1754	Bonin Petrel	1	↓→		
1755	Bonin Petrel	1	↓→		
1755	Bonin Petrel	1	↓		
1756	Bonin Petrel	2	↓		
1758	Bonin Petrel	2	↓		
1800	Bonin Petrel	1	↓		
1800	Bonin Petrel	1	↓		
1801	Bonin Petrel	2	←		
1802	Bonin Petrel	1	↓		
1803	Bonin Petrel	2	↓		
1804	Bonin Petrel	1	↙		
1804	Bonin Petrel	1	↓		
1805	Bonin Petrel	1	↘		
1806	Bonin Petrel	1	↑		
1806	Bonin Petrel	1	↓		
1807	Bonin Petrel	1	↓		
1807	S. petrel ?	1	↓		
1807	Booby sp	1	↓		Red-foot or Blue Footed
1809	Bonin Petrel	1	↓		
1810	Bonin Petrel	1	↓		
1812	Bonin Petrel	1	↓		
1813	Bonin Petrel	1	↓		
1814	Bonin Petrel	1	↓		
1815	W. T. Shear	1	↓		
1815	W. T. Shear	1	↓		
1816	Bonin Petrel	1	↓		
1816	W. T. Shear.	1	↓		
1817	W. T. Shear	1	↓		
1818	Bonin Petrel	1	↓		
1819	Bonin Petrel	1	←		
1820	Bonin Pet ?	1	↙		
1821	Bonin Petrel	1	↑		
1822	W. T. Shear	1	←		
1823	Bonin Petrel	1	↗		
1824	Bonin Petrel	1	↙		
1824	Bonin Petrel	1	←		
1825	Bonin Petrel	1	↓		
1825	Bonin Petrel	1	↓		

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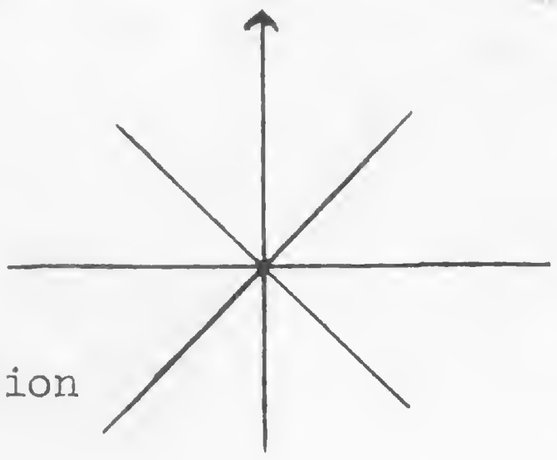

Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Ely, C.W.
Clapp, R.B.
+ "Freeby"

Date 25 Aug. 67
Pg.# ~~3~~ 14

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
1827	Bonin Petrel	11	↓		All Wedge-tails on this page were light phase birds =
1828	Shear-pet	1	↑		
1829	Bonin Petrel	1	↓		
1829	Bonin Petrel	1	↓		
1830	Wedge T. Sh.	1	←		
1832	W.T. Sh.	1	←		
1832	W.T. Sh.	1	↓		
1836	W.T. Sh	1	↓		
1836	Bonin Petrel	1	↓		
1839	Bonin Petrel	1	↓		
1842	Bonin Petrel	1	↓		
1842	W.T. Shear	1	↓		
1843	Bonin Petrel	1	←		
1844	W.T. Shear	1	↓		
1844	Bonin Petrel	1	↓		
1845	W.T. Shear	1	↓		
1845	W.T. Shear	1	↓		
1846	Bonin Petrel	1	↓		
1847	W.T. Shear	1	↘		
1848	W.T. Shear	1	↘		
1849	Bonin Petrel	1	↓		
1856	Shear-pet	1	↓		
1853	Bonin Petrel	1	↓		
1854	Bonin Petrel	1	↓		
1855	Bonin Petrel	1	↓		
1850	Bonin Petrel	1	↓		
[illegible]	Bonin Petrel	2	↓		
1922	Bonin Petrel	1	↓		
1925	petrel/shear	1	↓		
1930	~~Bonin~~ W.T. Sh.		↓		
	Bonin Petrel	1	↓		
1945	Bl.-f. Booby	1	→		ad.
1948	Bonin Pet	2	↙		
1952	Bonin Pet	1	↙		
1955	sh/pet	1	←		
1955	Bonin Pet	1	←		
1958	Sooty tern	1	←		(42)
1959	Bonin Petrel	1	↙		
2001	Bonin Petrel	1	←		
2010	Bonin Petrel	1	←		
2014	Bonin Petrel	1	←		

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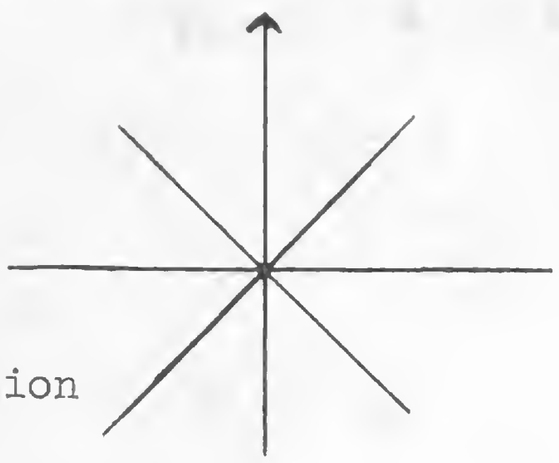
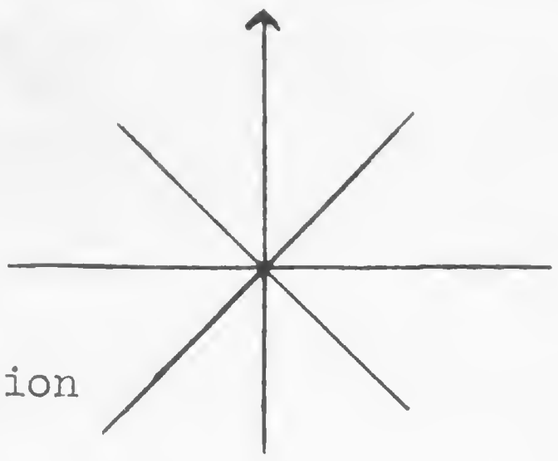


SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Ely
Eldupp

Date 26 Aug. 67
Pg.# 1

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0708					watch begun -
0709	Shear-Pet	1	←		
0710	W.T. Shear	1	↓		lt. phase
0719	W.T. Shear	1	↓		lt. phase
0728	Sooty Tern	3	→		
0729	RTTB	1	↗		
0733	Fairy Tern	1	↗		
0743	RTTB	2	↗		
0752	Bonn Petrel	1	↗		- flying towards and away from ship at ca. 200 ft ... higher than flying heart!
0758	RTTB	1	↗		~~many times~~
0801	W.T. Shear	1	←		lt phase
0805	Shear pet	1	→		Prob. Bonn.
0808	Bonn-Petrel	1	←		
0809	Bird sp	1			not seen by me
0811	Shear-pet.	1	←		fair ad
0813	Sooty Tern	3	→		- ad.
0816	FT	3	↗		distant - could be RTTB?
0824	Bonn Petrel	1	↘		
0827	Sooty Tern	3	←		adult
0827	W.T. Shear	1	←		ad-lte-phase
0828	Bonn Petrel	1	↙		
0829	Sooty Tern	1	←		ad.
0829	Fairy Tern	2	↑		
0830	W.T. Shear	1	↓		lt. phase
0831	W.T. Shear	1	↑		lt. phase
0832	W.T. Shear	1	↑		lt phase
0833	Shear-pet	1	←		
0834	Sooty Tern	1	↙		ad.
0834	Sooty Tern	1	↓		ad.
0835	Sooty Tern	1	↙		ad. Flying about 10-15 feet above water, beak interrupted several times to dive to water to grab at something other. Did not enter water. Entire episode of several strikes by two birds took less than 10 seconds. Birds then continued on course.
0839	Bird sp.	1	←		not seen by me
0843	W.T. Shear	1	↓		lt phase
0844	Sooty Tern	1	←		ad
0850	Bonn Petrel	1	←		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
C. Lapp
Ely

Date 26 Aug 67
Pg.# 2

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
0856	Shear-pet.	1	↙		- wing cut
0858	Fairy Tern	1	↓		
0858	Bird sp.	1	←		
0859	Bonin Petrel	1			
0908	Bonin Petrel	1	→		
0912	Bonin Petrel	3	→		
0917	Bonin Petrel	1	←		
0918	Brit bird	1	↗		
0919	Bonin Petrel	1	←		
0921	White tern	1	→		
0921	Bonin Pet	1	→		
0922	Bonin Pet	1	→		distant
0923	White tern	3	→		
0923	Bonin Pet	4	←2 →2		2 together
0927	w.t. shear	1	←		distant
0929	sh/pet	1	←		
0930	w.t. shear	2	↘		
0932	w. tern	1	↘		straight line flight
	S. tern	7			
0936	Bonin Petrel	1	→		
0939	White tern	2	↘		all terns seem to be working same direction
	Sooty tern	4			
0939	w.t. shear	1	→		
0941	Bonin Petrel	2	→		
0942	white tern	3	↔		
0942	Brit bird	1	→		
0943	Bonin Pet	2			
0946	w.t. shear	1	←		
0946	Bonin Pet	3	→		
0950	S. Skua	1	→		
	tern-species	1			
0951	Sooty tern	2	↑		
0953	Bonin Petrel	2	→		distant
0953	w.t. shear	3	→		
0956	Sh. Dug	1	→		♀
0957	w. tern	2	↓		
0959	Bonin Pet	2	→		
0959	white tern	2	↘		

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1001 -	Sooty Tern	3		circling
1001 -	RTTB	1		hi over ship
1003 -	RTTB	1	→	
1003 -	Bonin P	1	?	
1003 -	Shear-Pet.	1	↖	
1004 -	Bonin P.	1	↗	
1004 -	Shear-Pet	1	↖	
1004 -	W.T. Shear	1	↙	lt. phase
1005 -	Xmas Is?	1	↙	probably - looked too lg + heavy for Bulwers
1005 -	W.T. Shear	1	→	light phase
1005 -	Sooty Tern	2	S	adults
1005 -	White Tern	2	↗	
1006	W.T. Shear	1	→	light phase
1006	W.T. Shear	4	↙↙↙↙	all light phase, sitting until ? when 1st seen
1007	Bonin P.	1	↗	
1007	Shear.-pet.	1	↗	
1008	W.T. Shear	1	↙	light phase
1009	Bonin-P.	1	←	
1011	Bird-sp.	1	→	way out - prob - shear-pet - ca 40-60 ft. off water
1012	Fairy Tern	2	↗	
1012	Fairy Tern	1	⇄	
1013	Bonin P.	1	↑	
1014	Bonin P.	1	←	
1015	Fairy Tern	2	↙	Both apparently fishing while traveling.
1018	Bonin P.	1	↙	
1021	Fairy Tern*	1	↙	
1022	W.T. Shear	1	← H.ph.	
1023	Bonin P.	2	↗	
1024	Bonin P.	1	↖	
1025	Fairy Tern	1	↙	
		40		

Both apparently fishing while traveling. Strike is made from about 20 feet in a curved dive ⌣ ← thus. Bird picks at water surface at nadir of sweep and pulls partially up to hover above water. Birds also showed "intention dives" (?) which were not finished = ⌣ Intention dive followed by strike gave flight path

* also fishing

1026	Fairy Tern	2	⇉
1028	Fairy Tern	2	⇉
1030	Shear-pet.	1	←
1032	W.T. Shear	1	←
1033	Fairy Tern	1	↙
1036	Bonin P.	1	←
1038	Bonin P	1	←
1038	Bonin P.	1	←
1039	Fairy Tern	1	↗
1039	Bonin P.	1	↑
1040	W.T. Shear	1	→ lt. phase
1041	W.T. Shear	1	→
1041	Sooty Tern	1	→ ad.
1043	Fairy Tern	1	→

— watch — ended

1043
0708
335

24 aug. 1967

sheet 1 - last duplicated from memory cage.

times are correct to 1 hr; # of entries is nearly correct; # & time of individual entries may be off by up to 1 hr. except those marked *

species + # of individuals from memory & guess. except for less common forms

Began watch 061

*0620 - Great Frigatebird - still not light.

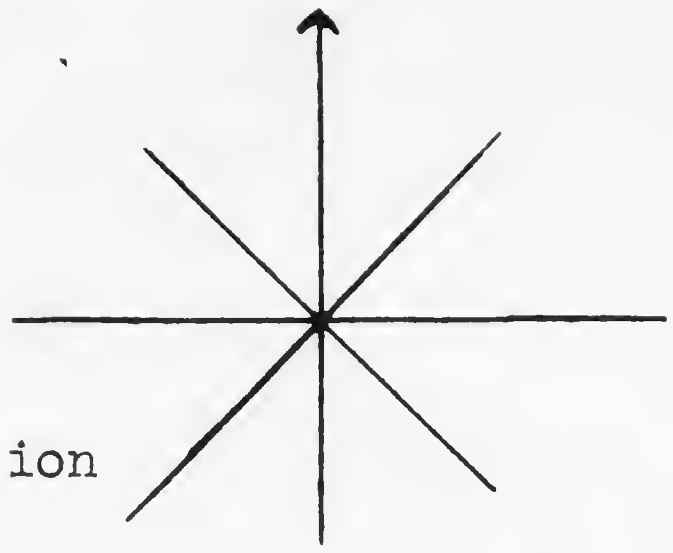
↓

0640 - w.t. shearwater 1
0645 - w.t. sh. 1
0700 - w.t. sh. 1
0705 - unid shearwater 1
0710 - w.t. sh. 1
0715 - w.t. shearwater 1
0720 - w.t. shear. 1
0730 - w.t. shear. 1
0735 - w.t. shear. 1
0740 w.t. shear. 1
0800 - red-f.t. bird 1 ad.
0805 - w.t. shear. 1
0810 - white tern 1
0815 - Sooty Tern 2 ↑
0820 white tern 1
0825 w.t. shear 1
0830 w.t. shearwater 1
0835 Sooty tern 1
0840 w.t. shearwater 1
0845 w.t. shearwater 1
0850 Sooty Tern 2
TF { Sooty Tern 1
w.t. shearwater 1
0900 w.t. shearwater 1
0905 w.t. shearwater 1
0910 Sooty terns 2
0915 Bulwer petrel 1
0920 w.t. shearwater 1
0925 w.t. shearwater 1

0930 w.t. shearwater 2
0935 w.t. shearwater 1
0940 w.t. shearwater -1
0945 Gr. Frigatebird -1 2nm. distance
0950 Black-w. petrel - 1

1000 - unid shearwater -1
1000 - w.t. shearwater -1
1020 - w.t. shearwater -1

Ship Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: Clapp, Ely

Date 24 aug. 67
Pg.# 2

	TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
	1034	w.t.t. bird	1	↙		at long streamers [illegible]
	1028	wt. shear	5	→		long lean "flock".
	1036	wt shear	1	→		
	1037	wt shear	1	→		—— [illegible]
	1108	wt shear	1	←		
	1112	wt shear	1	→	——	H.
	1148	wt shear	3	→		
	1158	Bul pet	1	←		
	1232	wt shear	1	←		
	1238	wt shear	1	→		
	1243	turnstone	1	◎		around ship 5-6 times then [illegible]
	1253	turnstone	1	→		prob same bird [illegible]
	1259	turnstone	1	←		prob same bird
	1320	turnstone	1	↺		prob " "
	1329	wt shear	1	→		
	1345	wt shear	1	←	——	[illegible]
	1345	flock				[illegible]
	1346	wt shear	1	←		close
	1346	wt shear	1	←		far [illegible]
	1350	flock breaking up [illegible]				[illegible]
	1350	wt. shear	2	←		
	1350	tern	15-20	→	——	at least one Sooty [illegible]
		shearwater	5			
	1353	w.t.tbird	1	↕		[illegible] ship (ad)
	1357	wt shear	1	←		[illegible]
	1359	turnstone	3	→		
	1408	Sooty Tern	2	→		
TF	1418	Tern sp?	73	→		—Distant
	1426	Bulwer's	1	→		

74 27

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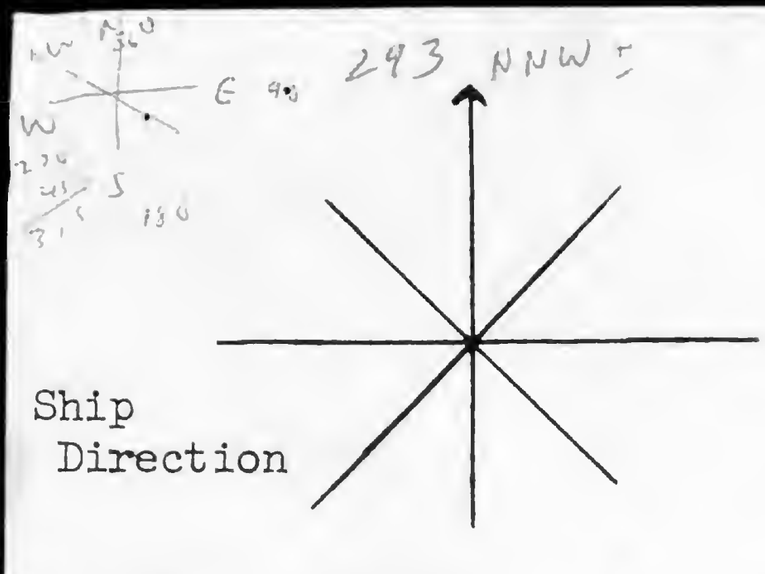


OBSERVERS:
Ely (Anguilla laysanensis)
Clapp

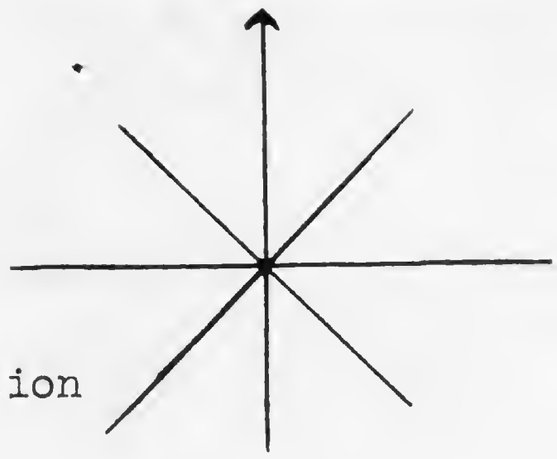
August 1946

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 24 Aug 67
Pg.# 3

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1529	WT shear	1	→		lt. phase
1531	WT shear	2	←		lt. phase
1537	Bulwers	1	→		
1551	[illegible]	1	←		Red-footed Booby
1556	Bulwers	1	/		
1526	Bulwers(?)	1	→		
1537	Bulwers	2	→		very close - possibly sitting on H_2O prior to observation.
1541	Bulwers	1	↘		
1555	WT Shear	1	→		lt. phase
1604	unid pet	1	↑		½ mi out.
1616	WT Shear?	1	←		- behind ship on ½ mile
1631	unid bird	2+	?		flock or boobies - terns?
1642	wt shear	1	↑		
1648	wt shear	1	←		
1649	wt shear	1	→		distant
1652	wt. bird	1	↓		wearing
1652					large flock ahead.
1657	Sooty tern	65+			milling around; flying fish seen but no terns seen.
FF	wt. shearw	40+			
1659	wt shear	1	↙		
1705	wt shear	1	↘		
1715	wt shear	2	←		
1715	wt shear	1	↓		
1721	unid sh.	1	↙		
1745	wt shear	1	→		
1752	Sooty tern	1	→		
1754	wt shear	2	↓↘		
1757	wt shear	1	→		
1807	wtsh.?	1	←		Red sun glare
1810	Shear pet	1	↑		
1817	Sooty Tern	2	↙		ad.
TF 1819	Frigate	1	↓		♀ or imm
	Terns sp	5-10	↓		
	W.T. Shear	1	←		

146 30



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Clapp
Ely

Date 24 Aug 67
Pg.# 4

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1821	Sooty Tern	1	←		ad.
1822	W.T. Shearw	1	→		
1822	"	1	→		
1822	"	1	←		
1823	"	1	↗		
1824	"	1	↗		
1825	"	1	↖		
1825	Sooty Tern	2	↖		
1826	Sooty Tern	1			
1827	W.T. Shear	1	→		
1828	Sooty Tern	2	↓		
1829	W.T. Shear	1	↓		
1834	W.T. Shear	1	↗		
1836	Newell's (?)	1	↙		Silhouette & flight pattern right but bird in sun could not see colors.
1400	Shear-pet ?	1	↓		
1901	Bird sp.	1	↓		-not seen by me
1916	Bird sp	1			
1917	Sooty Tern	1	→		ad.
1945	Sunset				
2001	shearwater sp	1	→		light wing pen.

18

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PRELIMINARY REPORT

EASTERN GRID SURVEY NO. 12

(Eastern Area Cruise No. 22)

25 August - 5 September 1967

Prepared by

Robert DeLong

EAC 22
EGS 12

Support Vessels :	LT 2080 & 2085		25 - 29 August
	Granville S. Hall, YAG 40		29 Aug. - 5 Sept.
Personnel:	Robert L. DeLong (BIC), Richard D. Chandler, Gerald A. Sanger		
Itinerary:	25 August	0800	LT's depart Long Beach - Chandler, Sanger
	25 August	1520-1900	Offshore survey of south coasts, Anacapa, Santa Cruz, and Santa Rosa Islands. Chandler and Sanger. Results included in EAC 23 report
	26-29 August		LT's run Grid from Point ASL & Elm
	28 August	1600	YAG 40 depart Long Beach - DeLong
	29 August	0745	Transfer Chandler & Sanger to YAG 40
	29 August	1120	Re-enter Grid at Point Elm
	4 September	0915	Depart Grid, Point Oak
	5 September	1400	Arrive San Diego

The much-appreciated, excellent cooperation continues to be extended by officers and men of the Granville S. Hall. Fine cooperation was also received from the officers and crews of the LT's.

The departure of the YAG 40 from Long Beach was delayed due to a breakdown in after-steering. The LT's were used for the first third of the Grid survey to prevent disruption of the fall schedule. Seas were small during this first period, providing good observing conditions from the tugs. En route to the Grid the LT made an offshore survey of the south sides of Anacapa, Santa Cruz, and Santa Rosa islands.

During the in-port period in Long Beach a Bathythermograph winch was acquired and installed on the YAG 40. The winch was most generously loaned to us by Scripps Institution of Oceanography for the duration of the work.

Methods

Complete diurnal observations were taken while in the Grid area. Nocturnal observations were taken 29 August through 3 September, both while underway and while laying to. During the 2-1/2 hours of laying-to on 31 August a floating mist net was successfully launched from the ship. During this same period the boat launching platform was lowered and unsuccessful attempts were made to collect cephalopods.

The skiff was used 2 and 3 September for collecting birds while in the southern portion of the Grid. Attempts were made to collect specimens of Delphinus from the skiff as well as from the ship.

Bathythermograph casts were made at four-hour intervals in the central and southern portions of the Grid. For reference the BT slides were photographed individually against the calibrated Grid and printed on 8 x 10 contact sheets. A copy of these prints is included with this report as Figure 3.

All positions on this survey and on EGS 10 and 11 are LORAN fixes. LORAN accuracy on the first third northern leg is poor. All other fixes are considered accurate within the limits of LORAN (2 to 5 miles).

Results of Discussion

During diurnal observations from the tugs and YAG of 109.1 hours and 957 miles 452 birds were recorded. These observations are summarized in Table 1. The observations from the two vessels are treated equally. No discussion of the validity of such treatment is undertaken at this time. Nocturnal observations are summarized in Table 3.

Again on this survey diurnal coverage was good in each of the nine sectors of the Grid. Numerical abundance and densities of species groups are included in Tables 4 and 5. North-South and East-West sectional breakdowns are Tables 6 and 7. About 46 percent of the observations were recorded in the northern third of the Grid. A near-equal percentage of observations was recorded in the eastern third. The previously recorded northward movement of storm petrels and their concentrations around Point Dogwood during EGS 10 and Point Ash on EGS 11, plus the presence of most of the phalaropes recorded in the northern and eastern sections strongly suggests the presence of "richer" waters in the northern third of the Grid. The same is generally true of the eastern third of the Grid. The cause for this is believed (without concrete evidence at this time) to be that both of these areas lie in more active areas, i.e., faster flowing, of the California Current. The faster currents affect the north section of the area, then around Point Conception and shift eastward. It then asserts strong influence only on the eastern third of the area. If this rambling hypothesis be correct it would explain bird abundance on the basis of environment rather than by proximity to land masses (which seams a weak explanation for distribution of many recorded pelagic seabirds).

The recorded abundance of Storm Petrels in the southwest section (sector 7) of the Grid is not valid. On 2 September the skiff was used for four hours; during this time 47 percent of the day's total was recorded. This was effected as follows: The seas were calm, increasing the radius of visibility by possibly 2K; the ship was running at 7K, allowing the skiff to work up to 2+ miles on each side of the ship - this again increasing the radius of observation. As all birds seen from the skiff were radioed to the ship and recorded there, it effectively increased the number of birds recorded by two to four times. No effort was made to adjust these data in the presentation as this is difficult to achieve with statistical significance.

Ten Storm Petrels, one Red Phalarope, and one Cook's Petrel were collected in seven hours of skiff operation on two separate days.

Bathythermograph data collected on this trip promise to yield significant environmental data, but at this time we have not analyzed these data.

Efforts to collect birds with floating mist nets were unproductive. Possibly given a smaller ship, i.e., less free board thus easier to work from, this technique could be productive; however, a single net set in the sea is a very small sampling device and appears rather insignificant. Attempts to dip-net squid on the one night failed. There were squid in the waters but they remained at depths beyond the range of the dip-net. This is however a proven method of cephalopod collecting and warrants further efforts.

One of the abberant Delphinus was collected from the tugs. Full measurements and photos were taken of this animal. All attempts to collect these animals from the YAG again failed. This animal was very abundant in the Grid during this survey (See SA Manuals). Larger cetaceans were found only in the north and central portions of the Grid.

Black-footed Albatross

Distribution of albatross appears random. The birds showed little inclination to follow the tugs used on the northern legs of the survey. The presence of largely white-faced birds with light-appearing breast and belly feathers was noted.

Pink-footed Shearwater

Two birds were recorded in the northeast section and one in the north-central section of the Grid.

New Zealand (Buller's) Shearwater

One bird was positively identified in the northwest section of the Grid.

Sooty Shearwater

Three birds were recorded in the north and central sections of the Grid. This species is still in low numbers outside the Grid area.

Cook's Petrel

Three birds recorded and one collected. These birds apparently represent stragglers of the mass movements recorded during EGS 10.

Storm Petrels

WRSP	94
DRSP	15
Storm Petrel sp.	90

All birds observed, with one exception, are believed to be Leach's-type Storm Petrels; the exception being a small, all-dark bird observed on 31 August at 32°30' N, 123°19' W. This bird represents the first possible record of a Leach Petrel (Halocyptena microsoma) in the Grid.

The distribution of storm petrels during the survey did not appear random. Densities were high in the north and southern sections of the Grid. Density in the central section appears low; however, these data may be misleading. Seas were choppy during the survey of the central portion and generally smooth during the survey on the northern and southerly sections of the Grid. It is possible that sea conditions such as encountered in the central section reduce the radius of visibility enough to explain the low numbers recorded. It is well known among field observers that storm petrels are difficult to see in choppy seas (6-8 ft.), but it is not possible to assign a quantitative adjustment factor to these data to account for environment changes.

The high linear density of storm petrels in sector 7 is discussed earlier in the report. In summary of that discussion the recorded density is higher than actual densities due to smooth seas and observations from the skiff. Both factors increased the radius of visibility yielding greater numbers of birds recorded.

Red-billed Tropicbird

Two birds were recorded in sector 9 of the Grid.

Red Phalarope

Sixty-nine percent of the phalaropes were recorded in the northern section of the Grid. Birds were again recorded in the vicinity of slicks believed to be indicative of oceanographic fronts. These slicks were found in the east side of sector 2, as was the case on EGS 11.

The nocturnal abundance of phalaropes in the central section is of interest. On the night of 3 August, after seeing no phalaropes during the day, ca. 25 birds were recorded during 2-1/2 hours of nocturnal observation. The birds are attracted to the ship at night given proper overcast conditions. But on this night the ship was drifting (essentially remaining in one area) and such high numbers are difficult to explain. Do the birds move primarily at night and stay on the water during the day, or is there another explanation?

Jaegers

Parasitic Jaeger	1
Long-tailed Jaeger	1
Jaeger sp.	21

Jaegers were also centered in the northern section of the Grid, where 83 percent of the birds were recorded. Specific identification of these birds remains a problem as they seldom come close to the ship.

Alcids

Xantus Murrelet	1
Cassin Auklet	2
Alcid sp.	5

These five birds were recorded in the north and central sectors of the Grid, i.e., sectors 3 and 6.

Sterna sp.

Six unidentified birds were recorded in sectors 3 and 6.

Gull sp.

Four birds were recorded - not to species - in sectors 2 and 3.

Accidentals

Ducks sp.

Twenty-five birds recorded in two flocks in sectors 2 and 5.

Mourning Dove

+ - present
0 - absent

0	0	0
0	+	+
0	+	+

Seven Mourning Doves were recorded in sectors indicated above. Collected.

Band-tailed Pigeon

Records - 2 in sectors 5 and 9.

Brown-headed Cowbird

One bird seen each in sectors 4 and 8.

Bullock's Oriole

One bird landed on the main mast on 30 August while in sector 4. It was shot but fell in the water and was lost.

Mammals

Nine hundred thirty-nine mammals recorded in the Grid area (all but two were Cetacea).

Dolphins

This was the most abundant mammal in the Grid area with a total of 677 individuals recorded. One specimen was obtained 27 August at 34°20' N, 126°27' W. Complete measurements and photos were taken of this animal, and the skeleton roughed out and saved.

Great variance in coloration of extremities has been noted during past surveys. During this survey the animals recorded had small amounts of "dirty white" in the dorsal and on the flippers, whereas those seen and photographed on earlier cruises had brilliant white markings. The explanation of the change is believed to be one of two factors: 1) The mammals recorded in the area earlier have moved out of the Grid area, probably north or northwest, and those recorded on this survey were arrivals of another population (probably southern as northerly movements are evident); or 2) The white coloration is a secondary sexual characteristic which is becoming poorly defined in the "nonbreeding seasons." We have had extensive correspondence with Cetalogists on the West Coast and none can offer an explanation to this problem.

Lissodelphus

The appearance of this animal in the northern section of the Grid suggests that the southerly movements of the species are beginning.

Orcinus

A pod of 25± "killers" was seen at 34°53' N, 123°19' W. Loosely associated with this pod were two animals which showed large amounts of albinism. The animals were chased for some time and well-observed. Photos were taken by tug crewmembers and hopefully will be of value.

Whales

Baleen whales still predominated in the area. The concentration of all whales was in the northern section of the Grid area. That the largest of the Balaenoptera are remaining in the area indicates relatively large planktonic concentrations in these northern waters. These large animals would leave unrich waters to seek food were it not abundant here.

Non-Grid

Observations are summarized in Table 8. The presence of large numbers of Sterna just outside the Grid near Point Ash is worthy of mention. All other interpretations are left to the reader if he will refer to Tables.

MARINE MAMMAL OBSERVATIONS - EAC 22
25 August - 5 September 1967

GRID

Identification	#	Latitude	Longitude	Time	Date	Remarks
Dall Porpoise	2	34°57' N	121°27' W	0635	26	Riding Bow
Right Whale Dolphin	150±	34°59' N	122°17' W	1115	26	Chased (tugs)
Right Whale Dolphin	50±	34°58' N	122°2' W	1230	26	Same as above ? Chased briefly
Seal sp.	1	34°56' N	122°45' W	1450	26	NE Eared, DK BR, 5'-6' long
Whale	1	34°54' N	123°07' W	1705	26	Humpy-Rel #2 "icecream cone"- 20' showed flukes and lots of back, a good splash too. Close, 1/3 mi. but only glimpsed.
Delphinus	75	34°53' N	123°16' W	1745	26	Chased into sun for 5 min. - did not follow ship; high dorsal, some appeared to have white in dorsal; others ?
Orcinus orca	25±	34°53' N	123°19' W	1815	26	2 "pure" albino, 1 [2?] mottled albino
Porpoise	25±	34°53'N	123° 19' W	1815	26	Delphinus ? With killers
Porpoise	20±	34°53' N	123°31' W	1932	26	Dall or Delphinus not chased. "Throwing themselves bodily thru the H_2O."
Delphinus	50±	34°20' N	126°27' W	1320	27	1 ♂ collected
Porpoise sp.	15±	34°12' N	126°18' W	1500	27	Glimpsed astern, half twists, may be Delphinus, not chased
Delphinus ?	50±	34°12' N	125°55' W	1705	27	4 mi. to port Delphinus-acting; not chased
Sperm Whale	1	34°12' N	125°36' W	1857	27	1 animal, many blows
Baleen Whale	1+	34°14' N	123°25' W	0658	28	W; far to port/S pout seen
Whale sp.	1	34°14' N	123°26'W	0705	28	ca. 4-5 mi. off stbd beam
Porpoise	30±	34°14' N	123°05'W	0907	28	Delphinus ? Not chased; high dorsal-type with much splashing; running hard
Seal sp.	1	34°13' N	122°57' W	0953	28	Head out of H_2O

Identification	#	Latitude	Longitude	Time	Date	Remarks
Baleen Whale				1155	28	60'
Delphinus	30±	34°13'N	122°38' W	1205	28	At least 1 w/white-type dorsal, did not ride bow, chased and fled
Sei.? Whale	2	34°12' N	122°20' W	1615	28	Ident. on basis of large dorsal
Baleen Whale	1	34°11' N	122°02' W	1648	28	No prominent blowhole or dorsal
FIN ? Whale	1	34°11' N	121°56' W	1735	28	3 Blows High, back seen
Delphinus	8	34°11' N	121°46' W	1845	28	Attracted to ship; rode off fantail, not jumping
Sperm Whale	1+	33°18' N	121°36' N	1323	29	Blow still angular against wind. very low when blowing down wind
Baleen Whale	1	33°17' N	121°48' W	1350	29	2 blows; high columnar, back bit mp dprsa;s seem
SEI (???) Whale	1+	33°17' N	121°57' W	1445	29	Small columnar blows
Sperm (?) Whale	1	33°16'N	122°03' W	1518	29	blows, being windswept
Baleen Whale	1	33°15' N	122°06' W	1537	29	Blue/SEI ?? No dorsal seen
Delphinus	60±	32°40' N	126°28' W	1845	30	Riding bow wide variation in color patterns (See logs)
Delphinus	9±	31°41' N	121°16' W	1100	1	At least 2 w/white in dorsal; one small animal
Delphinus	60±	31°38' N	125°27' W	1400	2	Chased w/skiff
Delphinus (?)	5+	31°33' N	125°59' W	1830	2	Distant; not jumping
Delphinus	150±	30°56' N	124°14' W	1320	3	30 came to bow; many had white markings on dorsal - majority w/little white (see log
Delphinus	20±	30°55' N	123°49' W	1535	3	No white in dorsal
Delphinus	60	30°55' N	123°37' W	1645	3	No white in dorsal; ; 3 small animals behind
Delphinus	30±	30°54' N	123°29' W	1750	3	
			NON-GRID			
Delphinus	4	32°37' N	118°00' W	0700	5	Rode bow for 4 min. 1 w/light in middle of dorsal

TABLE 1. Summary of Diurnal Observations, Eastern Grid Survey 12
26 August - 4 September 1967

	Number	% of Total	Birds/ Linear Mi.	Number Collected	No. Sera Samples
Black-footed Albatross	44	9.9	.046		
Pink-footed Shearwater	2	0.4	.002		
New Zealand Shearwater	1	0.2	.001		
Sooty Shearwater	3	0.6	.003		
Shearwater sp.	3	0.6	.003		
Cook's Petrel	3	0.6	.003	1	1
White-rumped Storm Petrel	94	20.7	.099	10	2
Dark-rumped Storm Petrel	15	3.3	.015		
Storm Petrel sp.	90	19.8	.094		
Shearwater/Petrel	9	2.0	.009		
Red-billed Tropicbird	2	0.4	.002		
Duck sp.	25	5.5	.026		
Semi-palmated Plover	2	0.4	.002		
Pectoral Sandpiper	2	0.4	.002		
Red Phalarope	65	14.3	.068	2	1
Phalarope sp.	16	3.5	.016		
Shorebird sp.	6	1.3	.006		
Parasitic Jaeger	1	0.2	.001		
Long-tailed Jaeger	1	0.2	.001	1	
Jaeger sp.	20	4.4	.021		
Gull sp.	4	0.8	.004		
Sterna sp.	6	1.3	.006		
Xantus Murrelet	1	0.2	.001		
Cassin Auklet	2	0.4	.002		
Alcids	5	1.1	.005		
Mourning Dove	7	1.5	.007	1	
Band-tailed Pigeon	2	0.4	.002	1	
Brown-headed Cowbird	2	0.4	.002	1	
Bullock's Oriole	1	0.2	.001		
Passerine sp.	5	1.1	.005		
Bird sp.	16	3.5	.016		
	454	99.6	0.474	17	4

TABLE 2. Daily Summary of Observations, Diurnal, Eastern Grid Survey 12
26 August - 4 September 1967

	# Birds	# Miles	# Hours	Linear density	# Species
26 August	111	79	10.5	1.405	12
27	41	113	12.9	0.362	7
28	59	92	11.1	0.641	8
29	42	78	8.3	0.538	6
30	18	116	12.9	0.155	6
31	34	117	12.8	0.290	9
1 September	51	132	13.3	0.386	8
2	72	91	12.9	0.791	7
3	20	118	11.9	0.169	8
4	4	21	2.5	0.190	2
	452	957	109.1	0.473	21

TABLE 3. Summary of Nocturnal Observations, Eastern Grid Survey 12
26 August - 4 September 1967

	26	27	28	29	30	31	1	2	3	
Cook's Petrel				-	-	2	-	-	-	
Storm Petrel				-	1	1	-	2	-	
Red Phalarope				1	7	25± 5	-	-	-	
Jaeger sp.				-	1	1	-	-	-	
Bird sp.				1	-	-	-	-	1	
Total				2	9	29	0	2	1	43
# Hours	0	0	0	2	2.5	2.5	2	2	2	13.0
# Miles	0	0	0	20	23	0	0	14	5	62

1	2	3
4	5	6
7	8	9

TABLE 4. Sectional Abundance of Species Groups E.G.S. 12
26 August - 4 September 1967

Group	Areas 1	2	3	4	5	6	7	8	9	Total
Albatross	4	3	5	7	8	17	5	9	7	68*
Shearwater/Petrel	10	2	2	1	1	-	-	2	1	19
Storm Petrel	13	21	48	9	4	6	52	16	31	198
Tropicbird	-	-	-	-	-	-	-	2	-	2
Phalaropes	5	28	23	-	-	24	1	-	-	81
Jaegers	6	4	5	1	-	1	-	2	3	22
Gull	-	1	3	-	-	-	-	-	-	4
Tern	-	-	1	-	-	5	-	-	-	6
Alcid	-	-	5	-	-	3	-	-	-	8
Misc.	3	19	7	1	13	12	4	5	2	66
										450

* Not adjusted

TABLE 5. Sectional Densities of Species Groups, E.G.S. 12
26 August - 4 September 1967

	Areas 1	2	3	4	5	6	7	8	9	Total
Albatross	.035	.035	.059	.060	.070	.175	.047	.080	.055	.046*
Shearwater/Petrel	.088	.024	.023	.009	.009	-	-	.018	.008	.019
Storm Petrel	.114	.243	.563	.078	.035	.062	.485	.141	.244	.206
Tropicbird	-	-	-	-	-	-	-	.018	-	.002
Phalaropes	.043	.325	.270	-	-	.247	.010	-	-	.085
Jaeger	.053	.046	.059	.009	-	.010	-	.018	.024	.023
Gull	-	.011	.035	-	-	-	-	-	-	.004
Tern	-	-	.012	-	-	.052	-	-	-	.006
Alcid	-	-	.060	-	-	.031	-	-	-	.008
Misc.	.026	.223	.082	.009	.113	.123	.036	.046	.016	.069
* Based on total of 44 birds										.470

TABLE 6. North, Central, South Breakdown of E.G.S. 12
26 August - 4 September 1967

Species	Number			Linear density		
	N	C	S	N	C	S
Black-footed Albatross	12	32	24	.042	.098	.070
Pink-footed Shearwater	2	-	-	.007	-	-
New Zealand Shearwater	1	-	-	.004	-	-
Sooty Shearwater	2	1	-	.007	.003	-
Shearwater sp.	1	-	2	.004	-	.006
Cook's Petrel	-	1	2	-	.003	.006
White-rumped Storm Petrel	44	0	41	.155	.027	.119
Dark-rumped Storm Petrel	14	-	1	.049	-	.003
Storm Petrel sp.	24	10	56	.084	.030	.162
Shearwater/Petrel	8	-	1	.028	-	.003
Red-billed Tropicbird	-	-	2	-	-	.006
Duck sp.	17	8	-	.060	.024	-
Semipalmated Plover	-	1	1	-	.003	.003
Pectoral Sandpiper	-	1	-	-	.003	-
Red Phalarope	43	21	1	.151	.064	.003
Phalarope sp.	13	3	-	.045	.000	-
Shorebird sp.	3	1	2	.011	.003	.006
Parasitic Jaeger	-	1	-	-	.003	-
Long-tailed Jaeger	1	-	-	.004	-	-
Jaeger sp.	14	1	5	.049	.003	.014
Gull sp.	4	-	-	.014	-	-
Tern sp.	1	5	-	.004	.015	-
Xantus Murrelet	1	-	-	.004	-	-
Cassins Auklet	2	-	-	.007	-	-
Alcid	2	3	-	.007	.009	-
Mourning Dove	-	5	2	-	.015	.006
Band-tailed Pigeon	-	1	1	-	.003	.003
Brown-headed Cowbird	-	-	1	-	-	.003
Bullock's Oriole	-	1	-	-	.003	-
Passerine sp.	3	-	2	.011	-	.006
Bird sp.	6	7	3	.011	.021	.009
Total	218	111	147	.767	.338	.426

TABLE 7. East, Center, West Breakdown of E.G.S. 12
26 August - 4 September 1967

Species	Number			Linear density		
	W	C	E	W	C	E
Black-footed Albatross	19	20	29	.057	.064	.094
Pink-footed Shearwater	1	1	-	.003	.003	-
New Zealand Shearwater	1	-	-	.003	-	-
Sooty Shearwater	0	1	2	-	.003	.006
Shearwater sp.	1	1	-	.003	.003	-
Cook's Petrel	1	-	-	.003	-	-
White-rumped Storm Petrel	27	16	51	.081	.051	.165
Dark-rumped Storm Petrel	2	7	6	.006	.022	.019
Storm Petrel sp.	44	18	28	.131	.057	.091
Red-billed Tropicbird	-	2	-	-	.006	-
Duck sp.	-	17	-	-	.054	-
Semipalmated Plover	-	2	-	-	.006	-
Pectoral Sandpiper	-	1	-	-	.003	-
Red Phalarope	4	24	37	.012	.076	.120
Phalarope sp.	2	4	10	.006	.013	.032
Shorebird sp.	2	-	4	.006	-	.012
Parasitic Jaeger	1	-	-	.003	-	-
Long-tailed Jaeger	-	1	-	-	.003	-
Jaeger sp.	6	5	9	.018	.016	.029
Gull sp.	-	1	3	-	.003	.010
Tern sp.	-	-	6	-	-	.019
Xantus Murrelet	-	-	1	-	-	.003
Cassin Auklet	-	-	2	-	-	.006
Alcid	-	-	5	-	-	.016
Mourning Dove	-	1	5	-	.003	.016
Band-tailed Pigeon	-	1	1	-	.003	.003
Brown-banded Cowbird	1	1	-	-	.003	.003
Bullock's Oriole	-	1	-	-	.003	-
Passerine sp.	2	1	2	.006	.003	.006
Bird sp.	4	3	9	.012	.010	.029
Total	126	131	211	.377	.417	.683

TABLE 8. Summary of Non-Grid Observations, EAC 22, 25 August-5 September 1967

	L.B.-Anacapa 0850-1400Z 25 Aug.	Vicinity Pt. Ash 0633-0922 26 Aug.	Pt. Oak 0945-1740 5 Sept.	Arrive S.D. 0648-0945 5 Sept.	Total
Black-footed Albatross		1		2	3
Sooty Shearwater		6		2	8
Pink-footed Shearwater	10			4	14
Shearwater sp.				4	4
Total Shearwater					26
White-rumped Storm Petrel		9	4		13
Dark-rumped Storm Petrel			1		1
Storm Petrel sp.		13	3		16
Total Storm Petrel					30
Br. Pelican	9			12	21
Cormorant sp.	1				1
Duck sp.				4	4
Red Phalarope	2				2
Northern Phalarope	15	5		13 (many close to S.D.)	33
Phalarope sp.	110 (North.)	4		1	115
Total Phalarope					150
Shorebird sp.		10			10
Jaeger sp.	2	6	1	1	10
Western Gull	11			78	89
Herring Gull	1				1
Heerman's Gull	1				1
Sabine Gull	2				2
Gull sp.	32				32
Total Gull					125
Sterna sp.		22			22
Alcid sp.		2			2
Mourning Dove			1	14	15
Passerine		1 (Cowbird)		8	9
Bird sp.		5	3	2	10
Total Bird	196	84	13	145	438
# Miles	56	38	55	46	195
# Species	10	8	3	11	17
# Hours	5.2	2.8	6.2	3.0	17.2

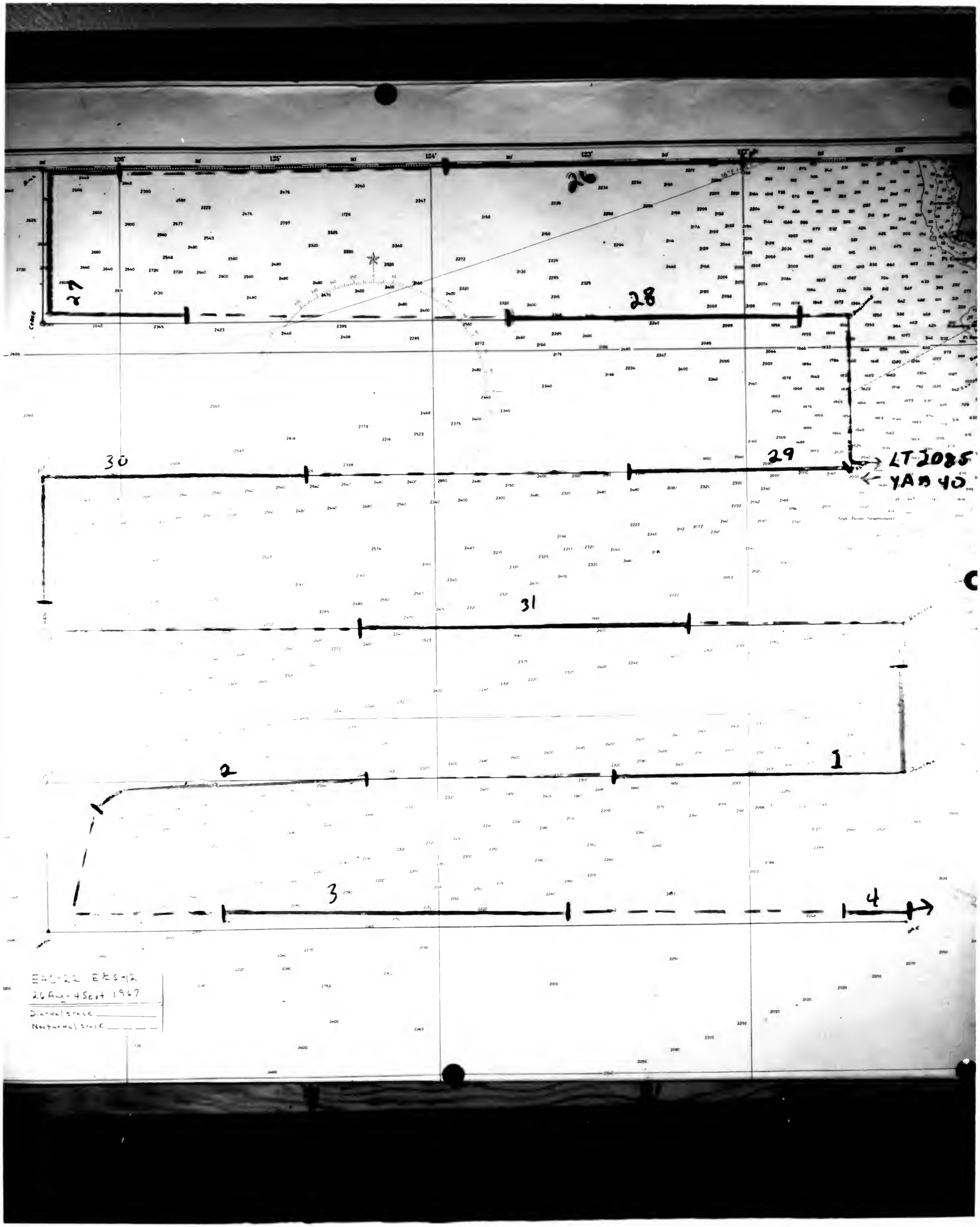

125°
124°
123°
26
27
28
29
30
31
1
2
3
4
LT 2085
YA 40
EAG-22 EKS-12
26 Aug - 4 Sept 1967
Diurnal track
Nocturnal track

Figure 1.

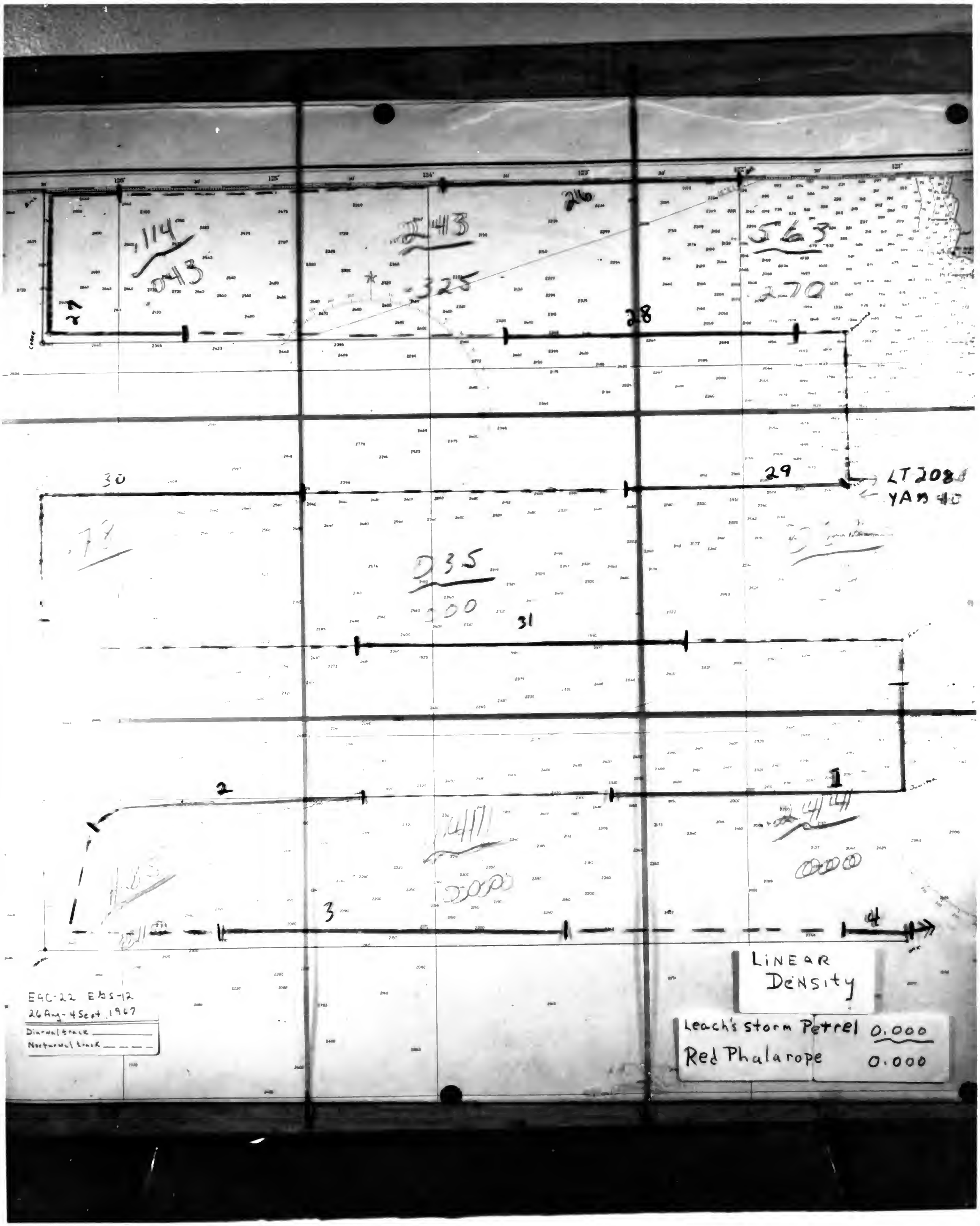
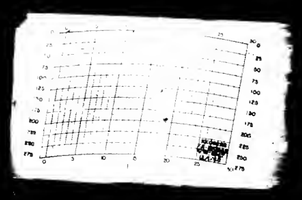
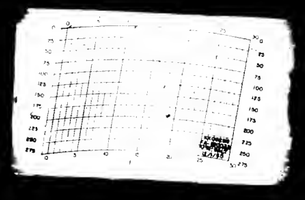
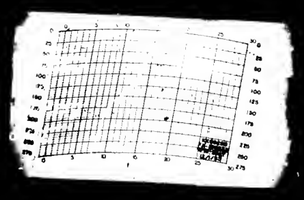
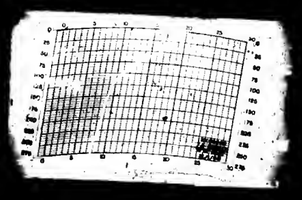

114
043
413
325
563
270
28
29
LT 208
YAM 40
78
035
100
31
30
2
1
3
4
EAC-22 EAS-12
26 Aug - 4 Sept. 1967
Diurnal track
Nocturnal track
LINEAR
DENSITY
Leach's storm Petrel 0.000
Red Phalarope 0.000

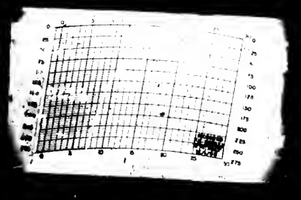
Figure 2

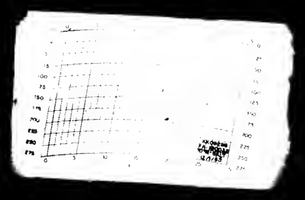


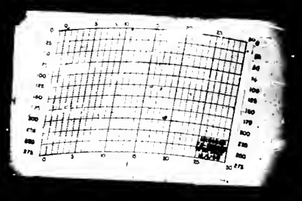


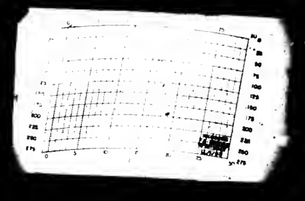


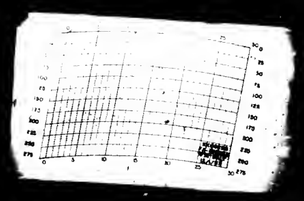


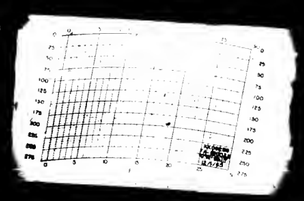


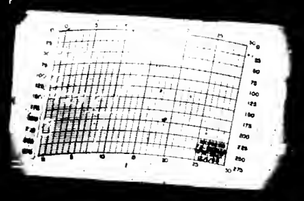


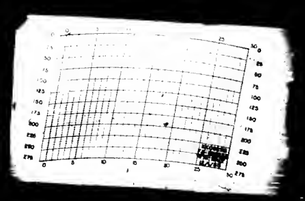


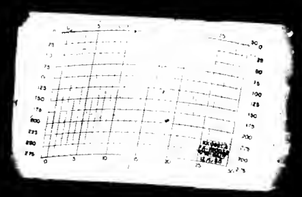


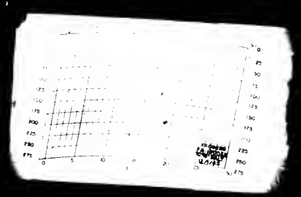


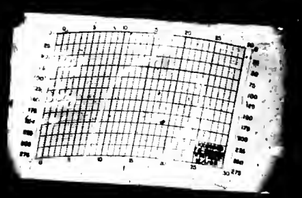


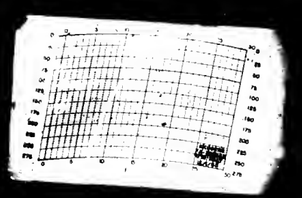


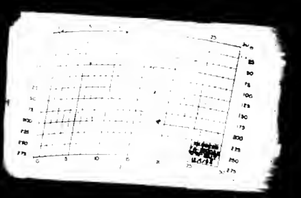


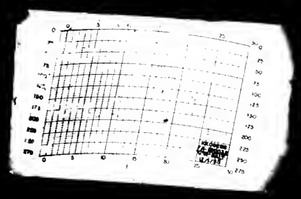


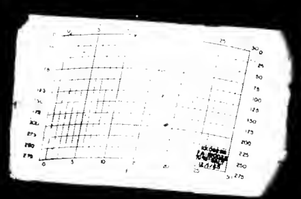


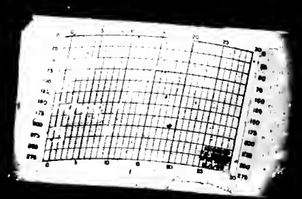


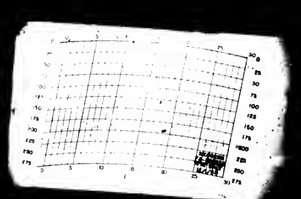


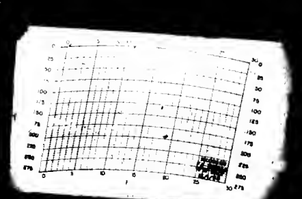


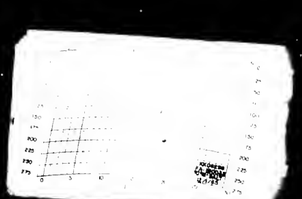












EAC 22 EDS 12 002-14

29 Aug - 2 Sept 1967

BT Slides

01 - 26

Figure 3 (1)

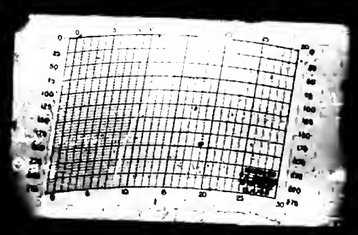
EAC 22 EDS 12 002-14

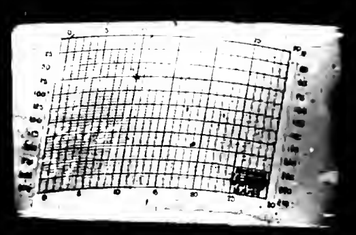
02-04 Sept 1967

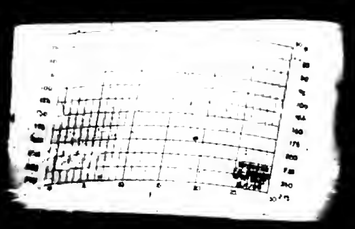
B-T slides

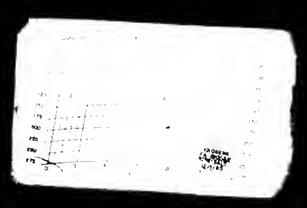
22-38

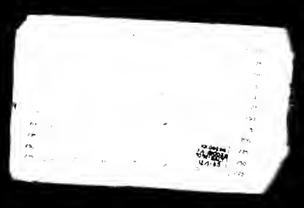
Figure 3(c)

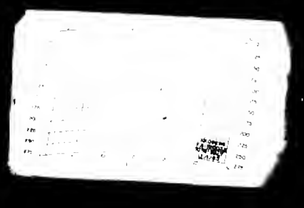


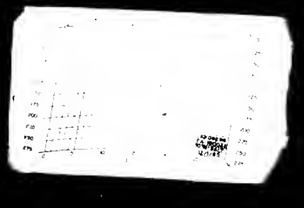


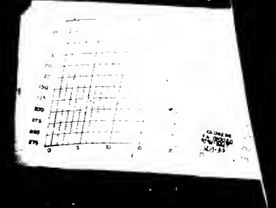












→ 34A → 34 → 34A → 35 → 35A → 36 → 36A

Date 22-23/Aug Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	22 04	160 54	262	3 KNT	080	2-4 FT	30.00
0200	22 03	161 08	260	3 KNT	080	2-4 FT	30.00
0300	22 10	161 -19	260	3 KNT	080	2-4 FT	29.98
0400	22 10.5N	161 31.3W	260	12 KT	067	2-4 FT	29.96
0500	22 16 N	161 42 W	260	12 KTS	075	2-4	29.96
0600	22 15 N	162 02 W	260	12 KT	085	2-4 FT	29.98
0700	22 17 N	162 13 W	270	13 KT	085	2-4 FT	29.98
0800	22 18N	162 27W	260	10KT	065	2-4 FT.	30.00
0900	22 25N	162 37.5	050	10KT	065	2-4 FT.	30.00
1000	22 27 N	162-55	050	10KT	050	3-5 FT.	30.00
1100	22 30N	163 -05	055	8KT	055	3-5 FT	30.00
1200	22-31 N	163 -14.5	285	8 KNTS	090	1-2 FT	30.02
1300							
1400	21-22.0N	158-50.2W	340°	4 KNTS	235°	1-2 FT	29.90 IN
1500	21-20N	158-30W	340	11 KNTS	235°	2-4 FT	29.93
1600	21-26 N	159° 16 W	323	17 KT.	070	2-4 FT.	29.90
1700	21° 29.2N	15°9 26.2W	330	19 KT	065	2-4 FT	29.87
1800	21° 32.5N	15°9° 39' W	320	18 KT	073	4-6 FT	29.90
1900	21° 32.6N	15°9°49' W	330	18 KT	070	4-6 FT	29.91
2000	21° 35.8N	160-05.8W	025	8 KT	025	4-6 FT	29.92
2100	21 40.8	160-12 W	040	10 KT	050	3-5 FT.	29.95
2200	21-40.8	11m-21W	050	10KT	040	4-6 FT	29.95
2300	21-59	160-31.8	320	5KT	320	4-7 FT	29.98
2400	21-58.3	160-45	030°	3 KT	040	4-6 FT	30.00

23 AUG

22 AUG

Date 25 Aug Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	22-04	160-55	262	3 KTS	080	2-4 FT	3000
0200	22-07	161-08	262	3 "	080	2-4 "	3000
0300	22-10	161-19	260	3 "	080	2-4 "	2998
0400	22-12.5	161-31.5	260	12 "	067	2-4 "	2996
0500	22-16	161-42	250	12 "	073	2-4 "	1996
0600	22-15	162-02	250	12 "	083	2-4 "	2998
0700	22-17	162-13	245	13 "	083	2-4 "	2998
0800	22-18	162-27	140	10 "	065	2-4 "	3000
0900	22-25	162-37.5	280	10 "	050	2-4 "	3000
1000	22-27	162 55	280	10 "	050	3-5 "	3000
1100	22-30	163-05	285	8 "	055	3-5 "	3000
1200	22-37.5	163-14.5	283	8 "	040	1-2 "	3002
1300	22 41	163 25	297°	6 KTS	080	2-4FT	30.00
1400	22 45	163 40	297	6 KTS	080	2-4FT	29.99
1500	22 49	163 53	303°	4 KTS	055	4-6 FT	29.99
1600	22 52	164 05	290	7 KT.	050	4 6 FT	29 98
1700	22 56	164 18	280	12KT	063	4-8 FT	29.98
1800	22 59	164 30.5	290	12KT	061	4-6 FT	29.98
1900	23 03	164 35 W	290	12 KT	063	4 6 FT	30.00
2000	23 06	164 47 W	018	6 KT	070	2-4 FT	30.00
2100	23 12	165 10 W	100	6 KT	120	2-4 FT	30.00
2200	23 15.5	165 23 W	120	9 KT	120	2-4 FT	30.03
2300	23-19	165 35 W	110	8 KT	110	2-3 FT	30.03
2400	23-22	165 45 W	306	4 KT	110	1-2 FT	30.04

BAR

Date Aug 24 Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	22-24	165-50	332	6	110	1-2 FT	30.04"
0200	23-29	166-07	321	6	110	1-2 FT	30.02"
0300	23-43	166-20	330	7	110	1-2 FT	
0400	23 35	166 33	320	8	100	2-4 FT	
0500	23 40	166 46	330	8	120	2-4 FT.	
0600	23 44	166 56	340	8	120	2-4 FT	30.02
0700	23 50	167 09	340	8	120	2-4 FT	30.04
0800	23 55	167-21	100	8	120	2-4 FT	30.05
0900	23 59.9	167-33	100	5	110	1-3FT.	30.06
1000	24 04.5	167-45	100	10	110	1-3FT.	30.08
1100	2409.5	167-56.1	100	8	100	1-3FT	30.08
1200	24-14.5	168-09	025	5	025	1-3 FT	30.06
1300	24-18.5	168-20.3	025	5	025	1-3 FT	30.06
1400	24-23.5	168-31.3	025	8	025	1-3 FT	30.05
1500	24-27.8	168-44.3	025	8	025	1-3 FT	30.05
1600	24-32.5	168-56	345	5	040	1-4FT	30.03
1700	24-36.5	169-08	345	5	040	1-4FT	30.05
1800	24-41.5	169-20	013	5	045	1-3FT	30.05
1900	24-46	169-32	253	14	045	1-3FT	30.03
2000	24 51	169 47	250	14	045	2-4FT	30 04
2100	24 54	170 00	260	14	050	2-4 FT	30 06
2200	25 00	170 13	255	13	040	2-4 FT	30 08
2300	25 05	170 25	260	12	040	2-4 FT	30 10
2400	2530.5	170 37	255	15	040		30.10

Date 25 Aug 67 Ship _____ (_____) Cruise No._____

Organization _____ Recorder _____

Sunrise: Time_____ Position: Lat._____, Long._____

Sunset: Time_____ Position: Lat._____, Long._____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

Hourly Positions: 25 AUGUST 1967

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR
0100	25 01.5	170-51	080	17 KT	070	2-4 FT	30.10
0200	25 01.5	171-04.5	080	15 KT	075	2-4 FT	30.10
0300	25-16	171-15.6	090	14 KT	070	1-3 FT.	30.08
0400	25-29	171-26	104	16 KT	104	1-3 FT	30.08
0500	25-33.2	171-37.5	100	14 KT	100	1-3 FT	30.08
0600	25-37.8	171-50	100	14 KT	100	1-3 FT	30.08
0700	25-39	171-43					
0800	25-44	171-55					
0900	25-49.5	172-06	087	15-20 KT	037	1-3 FT	30.12
1000	25-54	172-18	085	16-20 KT	037	1-3 FT	30.12
1100	25-59	172-30	089	16-20 KTS	037	1-3 FT	30.15
1200	26-05	172 41.5	090	17 KT	034	1-3 FT	3012
1300	26 10	172 53.5	085	17	040	1-3 FT.	3014
1400	26 15.2	173 04.4	085	17	040	1-3 FT.	3013
1500	26 20.2	173 16.4	090	17	037	1-3 FT	3012
1600	26 25	173 27	075	17KT	030	1-3FT	30.12
1700	26 30	173 39.5	075	16KT	030	1-3FT.	30.10
1800	26 30.5	173 49.8	065	17.5KT	020	1-3FT	30.10
1900	26 90.8	174 02	072	15.5KT	025	1-3FT	30.10
2000	26-45.5	174-13	080	15.5	086	1-3FT	30.12
2100	26-50	174-25	086	15.5	086	3-6FT	30.12
2200	26-54	174-43	084	22	084	3-6FT	30.13
2300	27-01	174-54	067	15	070	1-3 FT	30.13
2400	27-05.5	175-00	069	14	090	1-3FT	30.16

16/0
15.5/16

Date 26 Aug 67 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions: 26 Aug 67

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	Bar
0100	27-09	175-12	084	17 Kts	010	1-2 Ft	30.16
0200	27-14	175-23	084	17 KTS	010	1-4 Ft	30.16
0300	27-20	175-25	084	17 kts	010	1-4 Ft	30.14
0400	27 26.5	175 46.1	090	16 KT.	090	1-3 Ft.	30.14
0500	27 32	176 02.1	085	18 KT.	021	1-3 Ft.	30.14
0600	27 39	176 19	091	18 KT.	030	1-3 FT.	30.15
0700	27 42	176 23	091	18 KT	027	1-3 FT	30.16
0800	27 48	176 36	085	16KT	030	1-3 FT	30.14
0900	2755.5	176 49.2	074	17KT	035	1-3 FT	30.17
1000	2800.5	176 59.5	070	17KT	030	1-3 FT	30.17
1100	2806	177 11.5	073	16KT	030	1-3 FT	30.18
1200							
1300							
1400							
1500							30.18
1600	27 51.2	176-22.1	085	12 KT	295	4-7 FT	30.17
1700	2748	176 22.0	093	14 KT	290	4-7 FT	30.10
1800	2745	176 01	090	15 KT	290	4-7 FT	30.10
1900							
2000							
2100							
2200							
2300							
2400							

Date 28 Aug Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR.
0100	2746N	175-48W	085	12 KTS			30.12
0200			090	10 KTS			30.09
0300			090	10 KTS			30.08
0400			090	12 KTS			30.08
0500			065	12 KT			30.07
0600			075	12 KT			30.07
0700			080	10 KT			30.08
0800			060	14 KT			30.08
0900			075	10 KT			30.05
1000			075	10 KT			30.05
1100			080	10 KT			30.04
1200			075	10 KT			31.08
1300			065	10 KT			31.03
1400			065	10 KT			31.—
1500			080	10 KT			31.—
1600			050	8 KT			30.08
1700			065	8 KTS			30.06
1800			070	9 KTS			30.04
1900			080	3 KTS			30.02
2000			085	4 KTS.			30.01
2100			060	10 KTS	—	—	30.03
2200			085	10 KTS	—	—	30.04
2300			070	10 KTS	—	—	30.03
2400	2746	175-49W	085	11 KTS			30.12

33 P.
10 [illegible]
[illegible]

Date 30 AUG Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR
0100	27-47	175-49	093	10 KT	110	1-3 FT	3007
0200	"	"	100	10KT	110	1-3 FT	3007
0300	"	"	075	8 KT	105	1-3 FT	3005
0400			095	10 KTS	—	—	30.09
0500			090	10 KTS	—	—	30.05
0600			080	10 KTS	—	—	30.03
0700			090	10 KTS	—	—	30.05
0800			100	10 KTS			30.04
0900			100	10 KTS			30.06
1000			100	5 KTS			30.07
1100			100	5 KTS			30.08
1200			090	8 KT.			30.08
1300			095	5 KT.	120	1-3 FT	30.06
1400			095	9 KT.	125	1-3 FT	30.06
1500	27-41	175-07	264	26 KT.	095	1-3 FT	30.03
1600	27-34	175-45	348	24 KT	080	1-3 FT	30.02
1700	27-27	175-36	348	24 KT	080	1-3 FT	30.02
1800	27-20	175-30	309	7.5	090	1-2 FT	30.00
1900	27-16	175-25	312	7.5	090	1-2 FT	30.02
2000	27-47	175-09	070	10 KT	—	—	30.07
2100	"	"	080	10 KT	—	—	30.07
2200	"	"	070	10 KT	—	—	30.07
2300	"	"	093	9 KT	—	—	30.08
2400	"	"	093	9 KT	110	1-3 FT	30.08

30 AUG

29 AUG

Date 30 Aug Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR
0100							
0200							
0300							
0400							
0500							
0600							
0700							
0800							
0900							
1000							
1100							
1200							
1300							
1400							
1500							
1600							
1700							
1800							
1900							
2000	27-11	175-16	312	8	090	12 FT.	30.04
2100	27-08	175-11	320	9	080	12 FT	30.04
2200	27-04	175-08	310	6	093	1-3 FT.	30.04
2300	26-58	175-00	290	8	087	1-3 FT	30.04
2400	26-54.2	174-53	320	24	120	3-5 FT	30.03

Date 31 Aug. '67 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR.
0100	26-47.5	174-47	268	17 KT.	120	1-3FT.	30:03
0200	26-43	174-41	270	16KT	115	1-3FT.	30:05
0300	26-39	174-36.5	262	14 KT	090	1-3FT	30:04
0400	26-34	174-31	078	8 KT	110	1-3FT	3005
0500	26-29	174-24.8	078	8 KT	110	1-3FT	3005
0600	26-24.5	174-19	078	8 KT	110	1-3FT	3004
0700	26-19.3	174-13.2	078	8 KT	110	1-3FT	3003
0800	26-16.5	174-18	067	12 KT	110	1-3FT	30.05
0900	26-10	174-08	067	12 KT	110	1-3FT	30.05
1000			083	10 KTS			30:06
1100			091	11 KTS			30:07
1200	ANCHORED LISIANSKI		100	11 KTS.			30:08
1300			100	10 KTS			30:06
1400			085	10 KTS			30:05
1500			090	10 KTS			30:04
1600			095	12 KTS			30:01
1700			110	12 KTS.			30:01
1800							
1900							
2000			110	10 KTS	070	1-3 FT	3006
2100			100	10 KTS	070	1-3 FT	3008
2200			100	10 KTS	070	1-3 FT	3009
2300			060	10 KTS	070	1-3 FT	3010
2400			108	10 KTS	070	1-3 FT	3010

Date 1 SEPT 67 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR
0100	ARCHULETA	LISIANSKI	125	10 KTS	080	2-4 FT	30.08
0200			065	12 KTS	080	2-4 FT	30.06
0300			077	12 KTS	080	2-4 FT	30.06
0400			080	15 KTS	080	2-4 FT	30.04
0500			065	16 KTS	080	2-4 FT	30.02
0600			120	12 KTS	090	2-4 FT	30.00
0700			125	12 KTS	085	1-3 FT	30.00
0800			005	10 KTS	070	1-3 FT	30.02
0900			170	14 KTS	050	1-3 FT	30.05
1000			075	15 KTS	080	1-3 FT	30.03
1100			075	16 KTS	070	1-3 FT	30.05
1200			075	12 KTS	080	1-3 FT	3005
1300			105	14 KTS	085	1-3 FT	3006
1400			050	16 KTS	085	1-3 FT	3004
1500			065	8 KTS	095	1-3 FT	3000
1600			083	8 KTS	090	1-3 FT	30.00
1700			081	12 KTS	080	1-3 FT	29.98
1800			111	10 KTS	080	1-3 FT	30.00
1900			118	10 KTS	080	1-3 FT	30.00
2000			110	9 KTS	080	1-3 FT	30.02
2100			100	14 KTS	083	1-3 FT	30.03
2200			105	10 KTS	089	1-3 FT	30.05
2300			101	10 KT	090	1-3 FT	30.06
2400			100	14 KTS.	090	1-3 FT.	30.08

Date 2 SEPT 67 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR.
	ANCHORED	LISIANSKI IS					
0100	26-05	173-57	100	15 KTS.	085	1-3 FT.	30.08
0200			095	14 KTS.	105	1-3 FT.	30.08
0300			090	12 KTS.	90	1-3 FT	30.05
0400			085	12 KTS	075	1-3 FT	3005
0500			075	14 KTS	075	1-3 FT	3006
0600			100	14 KTS	080	1-3 FT	3007
0700			090	14 KTS	080	1-3 FT	3007
0800			080	15 KTS	070	1-3 FT	3008
0900			088	15 KTS	073	2-4 FT	30.11
1000			096	12	075	2-4 FT	30.12
1100			090	12	075	2-5 FT	30.12
1200							
1300							
1400							
1500							
1600			075	16	070	2-4 FT	30.09
1700			080	16	070	2 FT	3006
1800			075	16	075	2-4 FT	3006
1900			080	16	075	2-4 FT	3008
2000			080	16	080	2-4 FT	3008
2100			095	16	080	2-3 FT	3008
2200			090	16	080	2-3 FT	30.08
2300			092	16	080	2-3 FT	30.10
2400			095	16	080	2-4 FT	30.08

Date 3-SEPT.67 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BHC
	ANCHORED LISIANSKI I.						
0100	26-05'N	173-57'W	100	16KTS	080	1-3FT	30:10
0200			095	15KTS	085	2-4FT	30:09
0300			100	15KTS	090	2-4FT	30:07
0400			100	17KTS	080	2-4FT.	30:06
0500			090	15KTS	085	2-4FT.	30:07
0600			090	15KTS	085	2-4FT.	30:04
0700			110	12KTS	080	1-3FT	30:06
0800			100	14KTS	070	1-3FT	30:06
0900			035	14KTS	070	1-3FT.	31:—
1000			035	10KTS	070	1-3FT	31:—
1100			017	12KTS	070	1-2FT	31:—
1200			042	12KTS	070	1-3FT	30:06
1300			040	10	075	1-2FT	30:06
1400			040	10	075	1-2	30:04
1500			050	10	075	1-2	30:06
1600			080	10	090	1-2	30:04
1700			090	10KTS	085	1-2	30:01
1800			100	10KTS	075	1-2	30:05
1900			090	12KTS	075	1-2	30:01
2000			090	12KTS	080	1-2	30:03
2100			090	15KTS	070	1-2	30:03
2200			085	16KTS	080	1-3FT.	30:05
2300			085	15KTS	085	1-2FT	30:07
2400			085	12KTS	090	1-3FT	30:07

Date 4 SEPT 67 Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	26-04	176 -57	085	16 KTS	065	3-6 FT	3006
0200			085	18	065	3-6 FT	3006
0300			076	18	075	3-6 FT	3003
0400			080	19	070	3-6 FT	3004
0500			085	14	070	3-6 FT	3002
0600			085	14	070	3-6 FT	3002
0700			080	16	060	3-6 FT	3001
0800			065	14	085	3-6 FT	3000
0900			070	16	080	3-6 FT	3000
1000			080	16	090	3-6 FT	3000
1100			085	12	090	3-6 FT	3001
1200			088	12	090	3-6 FT	3001
1300			075	12	085	3-6 FT	3001
1400			075	14	085	3-6 FT	3000
1500			070	14	075	3-6 FT	3000
1600			090	10	065	3-6 FT	2998
1700			070	14	090	3-6 FT	2998
1800			075	14	070	3-6 FT	2996
1900			074	14	070	3-6 FT	2997
2000			088	14	090	3-6 FT	2997
2100			093	16	090	4-6 FT	2997
2200			103	18	090	4-6 FT	2999
2300			097	10	085	3-4 FT	2998
2400			095	10	080	3-4 FT	3003

Date 5 SEPT 67 Ship _____ (_____) Cruise No._____

Organization_____ Recorder_____

Sunrise: Time_____ Position: Lat._____, Long._____

Sunset: Time_____ Position: Lat._____, Long._____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	26 04	173-37	100	12 KTS	070	2-3 FT	3002
0200			093	5-KTS	080	2-3 FT	3002
0300			090	5 KTS	079	2-3 FT.	3010
0400			095	10 KTS	080	2-3 FT.	29:98
0500			085	10 KTS	080	2-3 FT	29:98
0600			090	10 KTS.	075	2-3 FT	29:97
0700			100	9 KTS	085	2-3 FT	2996
0800			099	7 KTS	090	2-3 FT	3001
0900	26 03.7	173-41.5	099	7 KTS	080	1-3 FT	3002
1000	26 02.3	173-30.2	099	9 KTS	090	1-3 FT	3003
1100	26-01.8	173-17	099	11 KTS	110	1-3 FT	3003
1200	26-01	173-02.6	099	11 KTS	090	2-4 FT	3003
1300	25-58	172-50	100	9 KTS	090	2-4 FT	3003
1400	25-56	172 37	100	5 KTS	090	2-6 FT	3001
1500	25-54	172-25	100	4 KTS	085	4-6 FT	3000
1600	25-53	172-12	100	5 KTS	080	4-6 FT.	2999
1700	25-51	172-00	100	6 KTS	090	4-6 FT	2999
1800			100	10 KTS	080	2-3 FT	3003
1900			105	5 KTS.	SEAS CALM		3003
2000			105	6 KTS	CALM	——	3006
2100			100	10 KTS	CALM	——	3007
2200			090	8 KTS	CALM	——	3008
2300			090	8 KTS	"	——	3008
2400			098	10 KTS	"		3009

Date 6 Sept 67 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	LAHSAU	ISLAND	095	10 KNS	CALM	—	3009
0200			100	12 KNTS	"	—	3008
0300			095	10 KNOTS	"	—	3006
0400			080	8 KTS	"	—	3005
0500			090	10 KTS	"	—	3005
0600			100	10 KTS.	"	—	3006
0700			095	6 KTS	"	—	3008
0800			095	7 KTS	"	—	3008
0900			090	10 KTS	"	—	3008
1000			085	10 KTS	100	1-2 FT.	3008
1100			090	10 KTS.	090	1/2m - 1 FT.	3009
1200			105	10 KTS	120	" - 1 FT.	3009
1300			115	10 KTS	105	" - 1 FT	3009
1400			110	10 KTS	105	" - 1 FT	3009
1500			105	10 KTS	105	" - 1 FT	3007
1600			100	10 KTS	100	CALM	3008
1700			100	10 KTS	—	CALM	3006
1800			100	10 KTS	—	CALM	3006
1900			100	14 KTS	—	CALM	3006
2000			100	12 KTS	—	CALM	3006
2100			105	10 KTS	—	CALM	3006
2200			105	10 KT	—	CALM	3008
2300			100	12 KT	—	CALM	3010
2400			100	13 KT	—	CALM	3010

Date 7 SEPT. '67 Ship _____ ( ) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	
0100	LAYSAN I SAND		110	15 KTS	090	1-2 FT.	30.03
0200	25-46 N	170-41.5	115	17 KTS	080	1-2 FT.	30.03
0300			100	13 KTS.	075	calm-1 FT.	30.08
0400			105	12 KTS	080	1-2 FT	3007
0500			105	14 KTS	085	1-2 FT	3007
0600			095	14 KTS	085	1-2 FT	3007
0700			090	13 KTS	085	1-2 FT	3007
0800			100	14 KTS	100	1-2 FT	3010
0900			100	15 KTS	100	1-2 FT	3010
1000			105	10 KTS	100	1-2 FT	3010
1100			105	12 KTS	100	1-2 ft	3011
1200			105	14 KTS	095	1-2 FT	30.09
1300			100	16 KTS	095	1-2 FT.	3009
1400			095	16 KTS	085	1-2 FT	3008
1500			100	16 KTS.	085	1-2 ft.	3008
1600			090	18 KTS	085	1-2 FT.	30.07
1700			100	18 KTS.	095	1-2 FT.	30.05
1800			090	18 KTS.	090	1-2 FT	30.05
1900			085	16 KTS	085	1-2 FT.	30.05
2000			115	18 KTS	090	1-2 FT.	3006
2100			107	13 KTS	085	1-2 FT	3008
2200			115	14 KTS	085	1-2 FT	3010
2300			112	14 KTS	085	1-2 FT	3010
2400			110	14 KTS	085	1-2 FT	3010

Date 8 Sept 67 Ship LFL 087 (____) Cruise No. ____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	Barometer
0100	LAYSAN	ISLAND	145	16 KT	—	CALM	3009
0200			140	16 KT	—	CALM	3008
0300			145	8 KT	—	CALM	3008
0400			147	2 KT	—	CALM	3008
0500			150	1 KT	—	CALM	3007
0600			140	10 KT	—	CALM	3006
0700			150	9 KT	—	CALM	30.05
0800			110	14 KT	—	CALM	30 05
0900			160	16 KT	—	1-2 FT	30.05
1000			145	14 KT	—	1-2 FT	30 04
1100			120	16 KT	—	1-2 FT	30.08
1200			115	16 KT	100	1-2 FT	3006
1300			120	18	—	Less Than 1'	30.04
1400			120	18	—	" " "	30.04
1500			120	18	—	" " "	30.02
1600			120	16 KTS	—	" "	30.02
1700			100	22 KTS	100	1-2 FT	29.98
1800			112	14	105	1-2 FT	29.98
1900			115	16	110	1-2 FT	3000
2000			117	16 KTS	100	1-2 FT	30 02
2100			117	16 KTS	100	2-4 FT	30 03
2200			105	16 KTS	100	2-4 FT.	30 03
2300			100	17 KTS	100	2-4 FT.	30 04
2400			120	10 KTS	110	1-2 FT.	3003

Date 9 SEPT 61 Ship _____ (_____) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.				
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR.
0100	LAYSAN ISLAND		120	10 KTS	—	CALM	30.03
0200	25-46 N	171-44 W	110	14 KTS	—	CALM	30.01
0300	"	"	105	15 KTS	—	CALM	30.01
0400	"	"	116	15 KTS	155	1-3 FT	30.01
0500	"	"	115	16 KTS	155	1-3 FT	30.01
0600	"	"	120	17 KTS	160	1-3 FT	29.99
0700	"	"	105	16 KTS	160	1-3 FT	3001
0800	"	"	110	16 KTS	110	1 FT	3002
0900	"	"	115	12 KTS	110	1 FT	3005
1000	"	"	107	20 KTS		1 FT.	3003
1100	"	"	115	16 KTS		1-2 FT.	3002
1200	"	"	110	16 KTS	100	1-2 FT.	30.02
1300	"	"	120	16 KTS	100	1-2 FT	30100
1400	"	"	130	16 KT	100	1-2 FT	29.99
1500	"	"	135	16 KT	105	1-2 FT	29.97
1600	"	"	100	17 KT	110	1-2 FT.	29.98
1700	"	"	115	18 KT.	100	1-2 FT	29.98
1800	"	"	105	18 KT.	105	1-2 FT	29.98
1900	"	"	120	15 KT	115	1-2 FT.	29.99
2000	"	"	120	13 KT	165	1-3 FT	29.99
2100	"	"	115	15 KT	165	1-3 FT	30.02
2200	"	"	120	12 KT	165	1-3 FT	3003
2300	"	"	120	16 KT	165	1-3 FT	30.04
2400	"	"	120	16 KT	110	1-2 FT	30.04

Date 10 Sept Ship [illegible] (____) Cruise No.____

Organization_____ Recorder_____

Sunrise: Time_____ Position: Lat._____, Long._____

Sunset: Time_____ Position: Lat._____, Long._____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	BAR
0100	LAYSAN	ISLAND	120	15 KT	120	1-2 FT	30.02
0200	25-46N	171-44W	120	15 KT	120	1-2 FT	30.02
0300			120	14 KT	120	1-2 FT	30.03
0400			130	13 KT	120	1-2 FT.	30.01
0500			125	14 KT	120	1-2 FT	30.01
0600			129	15 KT	120	1-2 FT	29.99
0700			130	15 KT	120	1-2 FT	29.99
0800			115	12 KTS	120	1-2FT.	30.03
0900			125	14 KTS.	125	1-2FT	30.05
1000			125	14 KTS.	125	1-2FT	30.07
1100			120	18 KTS	125	1-2 FT	30.07
1200			130	12 KTS	190	1-2 FT	30.07
1300			110	13 KTS	180	1-2 FT	30.05
1400			110	14 KTS	180	1-2 FT	30.03
1500			118	12 KTS	180	1-2 FT	30.03
1600			120	12 KTS	180	1-2 FT	29.99
1700			120	12 KTS	180	1-2 FT	29.99
1800			120	10 KTS	180	1-2 FT	30.03
1900			115	10 KTS	180	1-2 FT	30.03
2000			115	8 KTS.	180	1-2 FT.	30.05
2100			110	5 KTS	—	CALM	30.08
2200			130	8 KTS	—	CALM	30.10
2300			110	4 KTS	—	CALM	30.11
2400	↓	↓	110	2 KTS	—	CALM	30-11

Pos 16.0N 162.0W
AT 1100002 300° AT
12 KTS WINDS 65 KTS

60 miles radius 30
Wind except to NE

Seas 1-2 FT Forecast

Date 11 SEPT Ship LTC087 (_____) Cruise No._____

Organization_____ Recorder_____

Sunrise: Time_____ Position: Lat._____, Long._____

Sunset: Time_____ Position: Lat._____, Long._____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

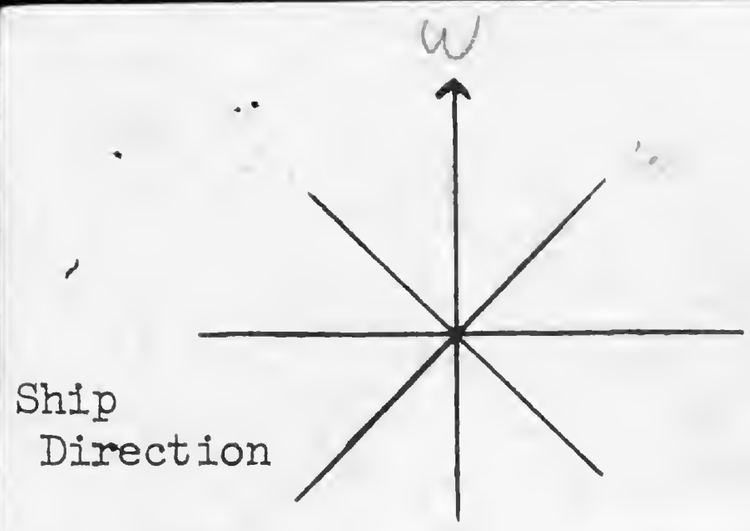
Miles travelled from sunset to 2400 hours = _____

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.			
2.			
3.			
4.			
5.			

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.	Bar.
0100	JAYSAN	ISLAND	100	5 KT	—	CALM	30.10
0200			098	4KT	—	"	30.10
0300			110	4KT	—	CALM	30.10
0400			105	2 KT	—	CALM	30.08
0500			115	6KT	—	CALM	30.07
0600			105	4KT	—	CALM	30.06
0700			110	4 KT	—	CALM	30.07
0800			085	4 KT	-	CALM	30.08
0900			090	5 KT	-	CALM	30.07
1000	25 48	171 31	089	9 KT	180	1-2 FT	3009
1100	25-48	171 27	090	9 KT	180	1-2 FT	3010
1200	25 48	171 14.5	075	11 KT.	090	1-3 Ft.	3009
1300	25 48	171 03.5	069	9 KT.	080	1-3 FT	30.10
1400	2548	170 53	074	9 KTS	085	1-3 FT.	30.06
1500	25 49.5	170 40	063	8 KTS.	080	1-3 Ft.	30.07
1600	25 49.5	170 23	060	8 KTS	080	2-4 FT	30.05
1700	25.49	170 10.2	090	11.5 KT	085	2-4 FT	30.07
1800	25.48	169 57.5	090	9 KT	085	2-4 FT	30.08
1900	25-48	169-45.8	048	10.5 KT	085	2-4 FT	30.09
2000	25-42	169-32	048	10.5 KT	090	1-4 FT	30.10
2100	25 42	169 22	049	11 KT	090	1-4 Ft	30.10
2200	25-42	169-10	049	11 KT	090	1-4 Ft	30.10
2300	25 42	168-58	069	9 KT	080	1-4 Ft	30.08
2400	2541.5	168 46	066	9 KT	080	1-4 FT	30.09

AR 25-40.5'N 166-57.5'W



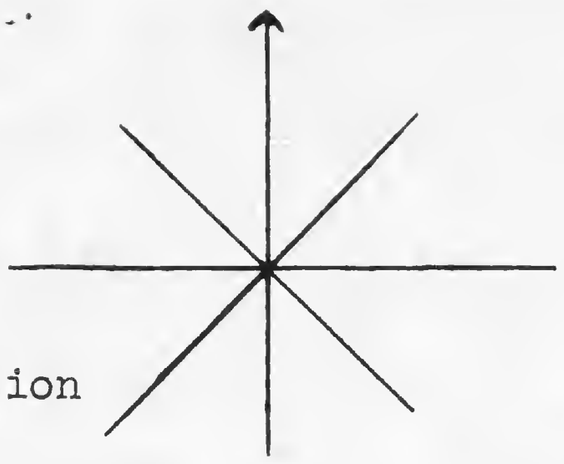
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
E/y
c/app

Date 22 aug 67
Pg.# 1

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0940	begin watch				
1004	R. f. Booby	1	→		adult
1008	Br. Noddy?	1	→		
1018	wt. Shear. -	5	→		loose flock (C+E) on close wings (RBC)
1021	wt. Shear.	1	→		
1028	wt. Shear	4	←		sitting on water
1030	Br. Noddy	1	←		
1031	wt Shear.	1	←		
1033	wt Shear	3	←		sitting water.
1037	Sooty Tern	1	←		
1043	w.r. Storm petrel	1	←		white rump clearly seen
1044	w.t. shearwater	1	←		
1046	w.t. shearwater	1	→		
1047	w.t shearwater	1	→		dark (northern) phase
1048	Br. Noddy	1	→		
1054	Red ft. (?) Booby	1			adult sitting on log.
1058	wind bird	1	→		dark, petrel like flight (?) RBC
1059	w.t. shearwater	1	→		light phase
1104	w.t. shearwater	1	→		〃
1114	w.t. shearwater	1	→		〃
1116	w.t. shearwater	1	→		〃
1120	w.t. shearwater	1	→		dark phase
1125	w.r. storm petrel	1	←		fairly strong, direct flight; not butterfly-like or fluttering
1137	head for shore to 1210				
1210	w.t. shearwater	2	←		
1213	w.t. shearwater	1	←		
1215	w.t. shearwater	1	←		
1215	w.t. shearwater	1	←		
1216	w.t. shearwater	1	←		
1219	white r. storm petrel	1	↓		flight rel. direct.
1228	w.t. shearwater	1	↗		

(34)

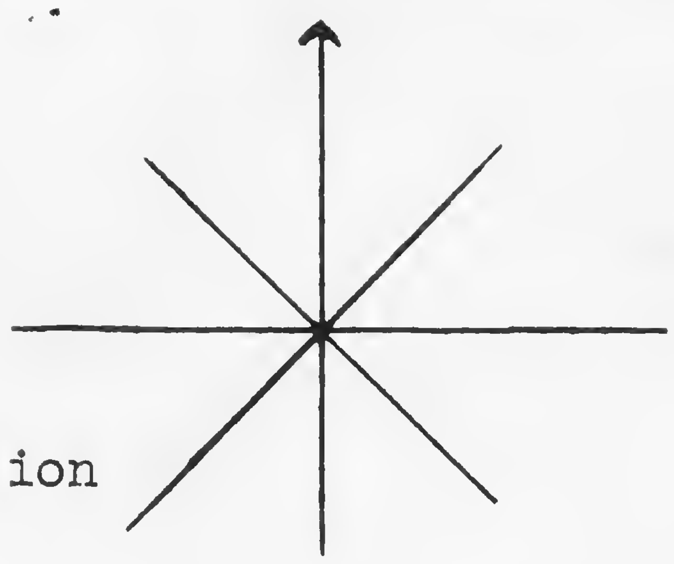


SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
Clapp
Ely

Date 22 Aug. 67
Pg.# 2

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1236	w.t. shearwater	1	→		light phase
1237	w.t. shearwater	1	→		"
1241	w.t. shearwater	1	↘		"
1307	Bulwer Petrel	1	→		c -
1309	wt shearwater	1	↓		light phase
1309	"	2	↓		"
1317	Bulwer Petrel	1	↓		excellent view
1321	w.t.t. Jaeger	1	←		up from water; adult, very long tail
1327	Gr. Noddy	1	↓		one sitting on log.
1327	w.t. shear.	1	↓		light phase
1341	WT Shear	1	→		— dark phase
1342	Sooty Tern	1	↘		— adult
1343	WT Shear	1	←		— light phase
1355	Petrel sp	1	←		
1356	WT Shear	1	→		— light phase
1357	WT Shear	1	→		
1410		1	↓		
1420	Tropicbird	1	↙		
1434	Bulwer's P	1	←		
1451	unid bird	1			
1456	w.t. shearwater	2	→		reported by watch; not seen coe
1456	unid. bird	1	→		light phase
1508	Bulwer Petrel	1	→		close, high, arcs.
1517	w.t. shearwater	1	↗		light phase
1533	wt. sh. (?)	1	←		distant, 2 D. ?
1545	wt.t. bird	1	↙		hi; in direct flight; ignored ship.
1546	w.t. shearwater	1	→		light phase
1558	wt. shearwater	1	→		"
1601	unid. shearwater	1	→		hi arcs; fast; dark above.
1604	w.t. shearwater	1	→		light phase
1410	w.t. shearwater	1	→		"
1611	w.t. shear.	1	→		
1631	w.t. shear.	1	→		
1637	w.t. shear.	1	→		



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
[illegible]
[illegible]

Date 22 Aug 67
Pg.# 3

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1625	Bulwer's P.	1	←		
1658	Bird sp	1	↑		
1710	Bulwer's sp	1	→		
1715	W.T. Shear	1	→		
1714	"	1	→		
1715	"	1	→		
1716	"	1	→		
1717	"	1	→		
1719	Newell's	1	→		
1720	WTTB	1	↘		
1721	W.T. Shear	1	→		
1731	Petrel sp	2	↓		- all dark - fairly far off - 1 may have been Bulwer's the other WT Shear
1745	wt. Shearwater	11	→		
1746	Newell Sh.	1	→		observed at close range
1750	W.T. Shear	1	→		H.
1751	W.T. Shear	1	→		H.
1754	Newell's	1	→		
1805	Bird sp	1	→		
1816	W.T. Shear	1	→		
1820					[illegible]
1832	Shearwater	1	→		
1835	W.T. Shear	1			
1836	W.T. Shear	1	←		
[illegible]	W.T. [illegible]	1	↑		[illegible]
[illegible]	W.T. Shear	2	→		probably [illegible]
1843	Newell's	1	→		
1846	WTTB	1	→		
1846	Newell's (?)	1	→		
1847	Petrel sp	1	→		
1845	Shearwater	1	→		
1850	W.T. Shear	1	→		H
1856	[illegible]	1	→		
1900	W.T. Shearwater	1	→		[illegible]
1900	[illegible]	1	←		
1903	Newell Shear	1	→		too far out to be sure
1953	Newell's Shear?	1	→		

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Rev. 5-66

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Ship Direction

OBSERVERS: [illegible]

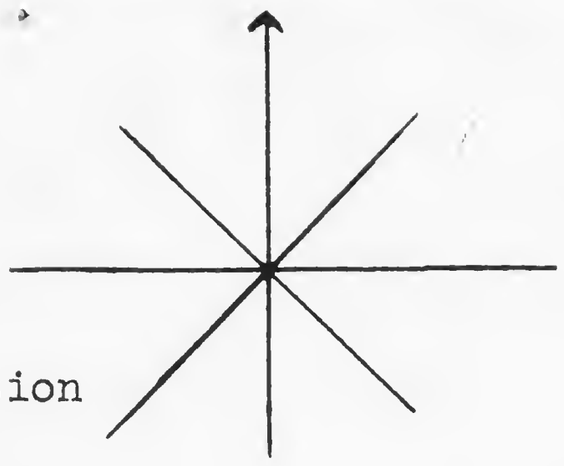
Date [illegible]
Pg. # [illegible]

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1904	[illegible]	1	→		[illegible]
1905	w t t [illegible]	1			
1905	Red f. Booby	1	↪		[illegible]
1906	[illegible]	1	←		[illegible] for I.D
1907	w. t. [illegible]	1	→		[illegible]
1909	w t [illegible]	1	→		
1909	w. t. [illegible] 3		→		
1910	Red f. Booby	1	→		[illegible]
1911	w t [illegible]	1	→		
1912		1	→		
1915					[illegible]
1915	tropic bird sp	1	←		
1918	Newell shear	1	→		

SET 22 -	1906	21°32.6'N	158°49'W
SET 23	1925	23°05'N	164°40'W
SET 24	1956	24°51'N	169°47'W
SET 25	2007	20°45.5'N	174°13'W

Sunset position - any light seen this

Sunrise - missing - check almanac & approximate



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date
Pg.# 1

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0706	[illegible]	1	→		
0712	"	1	←		
0716	[illegible]	1	←		
0706	[illegible]	1	←		
0706	[illegible]	1	←		
0710	[illegible]	1	←		
0710	[illegible]	2	→		
0711	[illegible]	1	←		
0711	[illegible]	2	←		
0711	[illegible]	4	←		
0712	Sooty Tern	1	←		
0713	W.T. Shear	1	←		
0713	Bulwer's ?	1	→		
0714	Bird sp	1	↗		— so. dissent
0715	Sooty Tern	4	←		
0716	Bird sp	1	←		
0717	Bulwer's	1	←		— right across bow
0717	White t. shear	1	↩		
[illegible]	Bulwer's	1	←		— close
[illegible]	Bulwer's	1	←		close
[illegible]	Bulwer's	1	←		close
0720	Bulwer's	1	←		
[illegible]	Bulwer's	1	←		
[illegible]	W.T. Shear	1	←		
0725	FB sp.	1	↩		
0726	Bulwer's	1	→		
0726	W.T. Shear	1	→		
0729	Bulwer's	1	←		
0730	W.T. Shear	1	←		
0731	RFB	1	←		— adult white phase
0732	Bulwer's	1	←		
0732	Bulwer's	1	←		
0732	Bulwer's	1	←		
0733	ST	1	→		

45

OBSERVERS:
Clapp
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SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Ship Direction

Date 23 Aug 67
Pg.# 2

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0732	Booby sp.?	1	←		distant
0733	Bird sp.?	1	←		
0740	WT [illegible]	1	←		
0741	[illegible]	1	[illegible]		[illegible] - central tail feather only 1/5 length of other
0742	Bulwers	1	←		
0743	ST	1	→		ad.
0743	ST	1	←		ad.
0743	Bulwers	1	←		
0744	ST	1	→		
0744	Bulwers	1	←		
0745	G.B. Tern	1	←		
0745	W.T. Shear.	1	←		lt.
0746	Bulwers	1	→		
0746	W.T. Shear	1	←		
0746	Bulwers	1	→		
0747	W.T. Shear	1	→		
0747	Shear sp?	1	←		
0754	[illegible]	1	←		
[illegible]	[illegible]	1	→		
[illegible]	[illegible]	1	←		
0756	[illegible]	1	→		[illegible]
[illegible]	[illegible]		←		[illegible]
[illegible]	[illegible]	1	←		
[illegible]	[illegible]	1	→		[illegible]
[illegible]	[illegible]	1			
[illegible]	[illegible]	1	→		
[illegible]	[illegible]	1	←		
[illegible]	[illegible]	1			[illegible]
[illegible]	[illegible]	1			
[illegible]	[illegible]	1	←		
[illegible]	[illegible]	1	→		[illegible]
[illegible]	[illegible]	1	←		[illegible]
[illegible]			←		
[illegible]		1	→		
[illegible]	[illegible]	1			
[illegible]	[illegible]	[illegible]			[illegible]
[illegible]	[illegible]	1			
			→		
[illegible]	[illegible]	1	←	43	

Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: [illegible]

Date [illegible]
Pg.# [illegible]

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	5	←		[illegible]
[illegible]	[illegible]	1	←		[illegible]
[illegible]	[illegible]	1.			
[illegible]	[illegible]	1	←		
[illegible]	[illegible]	[illegible]			[illegible]
	[illegible]	[illegible]			
	[illegible]	1			[illegible]
	[illegible]	1			[illegible]
	[illegible]	1			[illegible]
	[illegible]	5			[illegible]
	[illegible]	1			[illegible]
	[illegible]	5			[illegible]
[illegible]	Sooty tern?	1	←		
	W.T. Shear?	2			
[illegible]	[illegible]	1	←		
[illegible]	[illegible]	1	←		
[illegible]	[illegible]	1	←		[illegible]
[illegible]	[illegible]	1	[illegible]		[illegible]
[illegible]	[illegible]	1			[illegible]
0402	W.T. Shear	1	←		[illegible]
0405	Bulwer's	1	[illegible]		[illegible]
0407	Bulwer's	1	→		
0417	Bulwer's	1	←		[illegible]
0427	WTS	5			
	FT	1			
	Bulwers	3-4			
	unident.	5			
0433	R.F.B.	1			
	Brown Booby	25			
	G.B. Tern	1			
	Wedgetail	2-3			
	Bulwer's	2-3		221	

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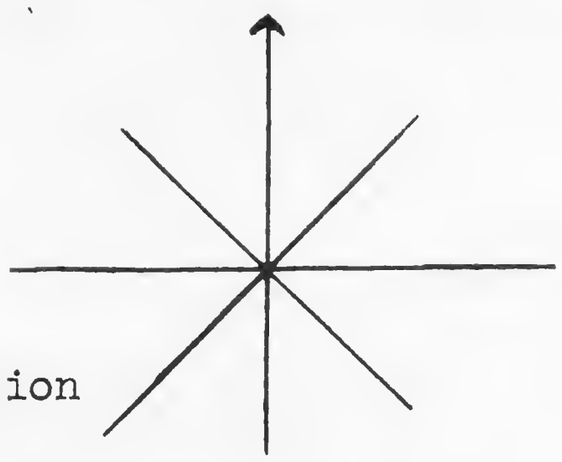

Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Date 25 Aug 67

Pg.# 1

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
0930	RTTB	1	↘		
0943	Bobwhite	1	→		
0948	Bobwhite	1	→		
0950	Bobwhite	1	←		
0952	G.B. Tern	2	→		
10:00	F.T. - ?	2	→		
10 00	WT. Shear	1	←		
1004	wt shear	1	←		
1005	wt shear	1	→		
1006	wt shear	1	↗		
1008	wt shear	1	←		
1014	Bob gal	1	←		
1017	Bob gal	1	←		
1018	wt shear	1	→		
1019	Bob gal	1	←		
1020	wt shear	1	←		
1021	wt shear	1	←		
1022	wt shear	1	→		
1023	wt shear	1	←		
1025	Bob gal	1	←		
1028	wt shear	1	→		
1033	wt shear	1	←		
1037	wt shear	2	→		
1045	Bob Gal	1	→		
1047	Bob Gal	1	→		
1048	Sheartail	1	→		
1049	Bob Gal	1	→		
1051	wt shear	1	→		
1052	wt shear	1	→		
1057	Bob Gal	2	→		
1059	W.T. Shear	1	←		H.
1100	W.T. Shear	2	→		H.
1101	W.T. Shear	1	→		H.
1103	W.T. Shear	1	→		H.

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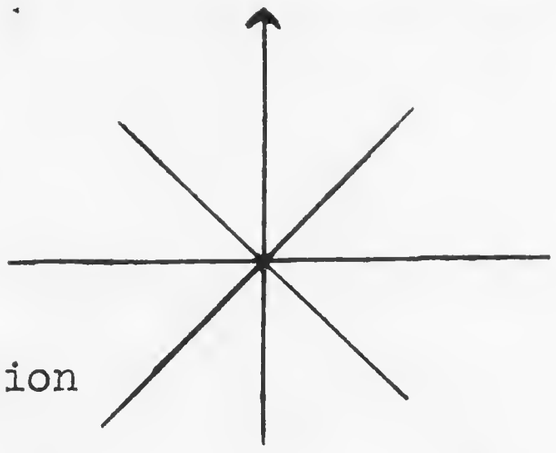

Ship
Direction

OBSERVERS:

Clapp
Ely

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 23 Aug 1967
Pg.# 5

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1113	Bird sp	3-4	→		very dark above
1114	W.T. Shear	1	↓		
1114	Tern sp	1	↘		
1116	W.T.Sh.	1	→		- approached ship closely. Flying over bridge
1127	Bulwer's	1	↙		
1127	W.T. Sh.	1	↙		H.
1128	W.T.Sh.	1	↙		H.
1131	Shear sp.	1	→		
1135	Bulwer's	1	←		
1136	W.T. Sh.	1	←		H.
1136	W.T. Sh.	1	←		H.
1137	W.T. Sh.	1	↓		H
1138	W.T. Sh.	1	↗		H.
1139	Bulwer's	1			
1144	W.T. Sh.	1	→		
1145	Bulwers	1	→		H
1145	Bulwers	1	→		
1153	Shear sp.	1	→		
1157	Bird sp	1	→		way the hell out
1158	Sooty Tern	1	↓		pure Southern bird
1159	Bulwers	1	↘		
1159	Shear sp.	1	→		fast w. floppy, stiff, neg. level flight
1201	Sooty Terns	2	↓		plover?
					both coming in to ship
1213	Bird sp	1	←		
[illegible]	W.T. Shear	1	→		
1220	W.T. Shear	1	→		
1221	W.T. Shear	1	→		H.
1222	G. B. Tern	1	↙		
1222	Shear sp?	1	→		
1223	Bulwers	1	↙		
1224	W.T. Shear	1	→		H.
1225	W.T. Shear	1	→		H.
1225	W.T. Shear	1	→		H.
1248	G.B. Tern	1	←		
1250	[illegible]	1	→		

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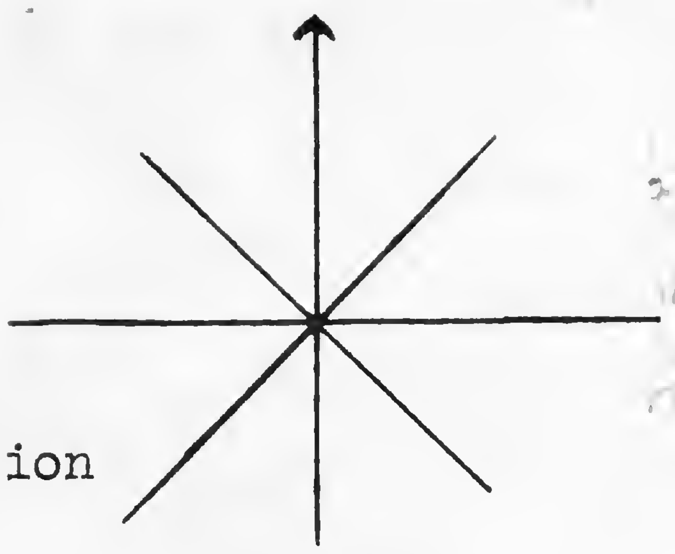
Ship Direction



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: [illegible]

Date 23 Aug 1967
Pg.# 6

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1309	W.T. Shear	1	←		H.
1322	RFB	1	↙		school, white phase (speckled back)
1352	W.T. Shear	1	→		
1353	W.T. Shear	1	→		
1401	W.T. Shear	1	↓		H.
1404	W.T. Shear	2	→		
1425	[illegible]	1	→		[illegible]
1432	[illegible]	1	←		[illegible]
1432	W.T. shear [illegible]	1	→		
1441	[illegible]	1	→		
1449	wt shear	1	[illegible]		
1445	[illegible]	1	←		
1445	[illegible]	1	←		
1450	wt shear	3			
1452	wt shear	1	[illegible]		[illegible]
T?F					
1456	wt shear	1	↘		
1504	Bulweriis	1	↓		[illegible] not seen well
1508	wt shear	ca. 30	↗		
	GB Tern?	1			
1511	wt shear	1			H } possibly part of flock
1511	wt shear	1			H
1511	wt shear	1			H At 1515 jumped a school of squid out of the water (25-50) which looked like [illegible] in flight
1511	wt shear	1			
1517	Bulwers	1	↙		
1530	wt shear	1			H.
1530	wt shear	1			H.
1539	[illegible]	1			Distant, probably Wedge tails
1540	[illegible]	1			
1548	[illegible]	1			
[illegible]	Brown [illegible]	1	→		apparently had been sitting on [illegible] H [illegible]
[illegible]	wt Sh	1	→		
1559	RFB	1	[illegible]		ad. - white phase
1554	Bulwers	1	←		
1621	[illegible]	2	↑		[illegible]
1622	[illegible]	1	↑		
1623	[illegible]	1	[illegible]		[illegible]

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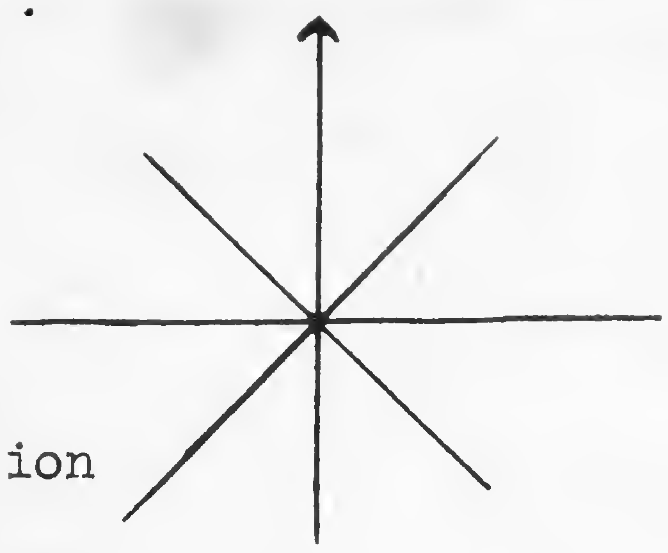

Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS: [illegible]

Date 23 Aug 1967?
Pg. # 2?

TIME	SPECIES	#	DIR.	SPECIMEN or BAND NO.	REMARKS
1626	wt sh. ?	1	→		[illegible]
1633?	wt shear	1	→		
1634?	wt shear	1	→		
1636	Bul pet	1	→		
1639	wt shear	1	→		
1652	wt shear	2	↘		
1705	wt. shear	1			
17[illegible]	wt shear	1	↙		
[illegible]	wt shear		↘		1725 – [illegible]
1725	wt shear	1	→		
1728	[illegible]	1			
1734?	wt. shear	1	↓		H.
1740	Golden Plover	2			
1741	RTTB	1	↗		[illegible] ship [illegible]?
1743	G.B. Tern	1			
1747	RTTB	1			1st 2nd only three ships in the [illegible]
1751	Bulwer's	1	↘		
1755	G. Plover	1	↗		
1756	WT. shear	1	→		
1808	wt shear	1	←		
1809?	Bul pet	1	→		
1810	Bul pet	1	→		
[illegible]	wt shear	1			
[illegible]	g.b. Tern	4			not actively feeding
	wt sh.	3			
	Bul pet	1			
1816	wt shear	1	←		
1817	[illegible]	1	←		
1820	g. [illegible]	1	←		[illegible] ?
1822	g. [illegible]	1	←		
1832	Bul pet	1	→		
1841	Bul pet	1	←		

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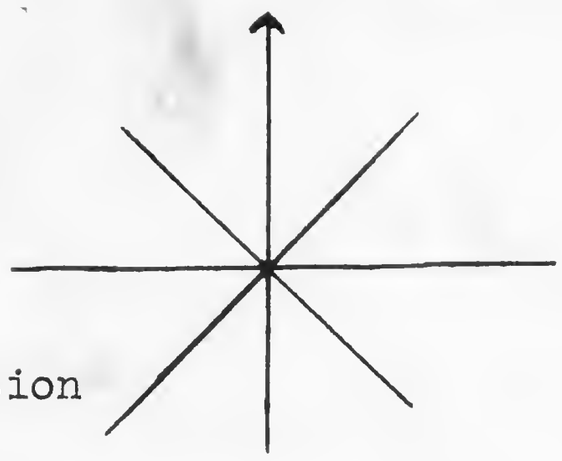

OBSERVERS:

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date

Pg.# 18

TIME	SPECIES	#	SPECIMEN or DIR.	BAND NO.	REMARKS
		1	←		
1552		1	←		
1917		1	→		
1918		1	←		
1921		1	→		
1912		2 14			
		2. 10	→		
	WT SH	1	→		
1-		1			
1915	WT SH	1	→		Imt
1916	WT SH	1	→		M
			→		
1:20	WT SH	1	→		
1925	WT SH	1	→		M.
					Small -
1925	wt sh	1	→		
1931	wt sh	1	→		
1933	wt sh	1	→		
1933	standing	1	→		Small
1934	Bill gull	1	←		
1936	wt sh	1	→		
1937	wt sh	1	→		
1939	wt sh	1	→		

(43)